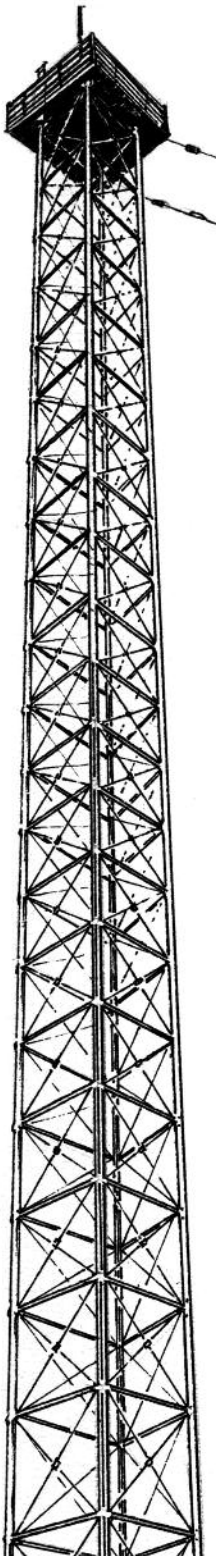

The AWA Journal

Quarterly Bulletin of the Antique Wireless Association®
Summer 2015, Vol. 56 / #2

ANTIQUE WIRELESS ASSOCIATION™

54th AWA WORLD CONVENTION
AUGUST 11-15, 2015

FIVE DAYS OF TOTAL IMMERSION IN RADIO LORE, ARTIFACTS AND EQUIPMENT

ENJOY THE FELLOWSHIP • LEARN FROM THE PROGRAMS
ACQUIRE OR SELL RADIO TREASURES

SPECIAL CONFERENCE THEME:
International Short-Wave Broadcasting and the Receivers That Listened

- **Visit the AWA Museum With Expanded Conference Hours**
- **Attend the Grand Opening of Museum Phase 2 Including the New Voice of America Station**
- **Expanded Old Equipment Contest Includes Special Categories for the Special Convention Themes**
- **Flat Rate Buys Unlimited Flea Market Space**
- **All New Forums and Presentations**
- **Food, Glorious Food! Welcome Buffet Dinner, Pizza Dance Party With All You Can Eat Buffet, Ladies Luncheon, 54th Anniversary Banquet**
- **Movie Night — Relax With Popcorn and Drinks**
- **Saturday Auction**
- **Special Event Station W2AN**

Location:
The Rochester Institute of Technology Inn and Conference Center
Rochester, NY

Directions: From Exit 46 of the New York Thruway (I-90), take I-390 North to NY 253 West to NY15 South. Look for the RIT building about 0.7 miles on the right.

For more information and to register online, visit www.antiquewireless.org
Questions? Call Chairman Roy Wildermuth at 585-899-6703

Published for the radio collector, historian, restorer and all vvintage communications enthusiasts.

SPECIAL CONVENTION ISSUE!
Pre-registration card inside.
Also see pages 35-40.

Originally published as

THE OLD TIMER'S BULLETIN

OFFICIAL JOURNAL, ANTIQUE WIRELESS ASSOCIATION™

BRUCE L. KELLEY 1914-1997, FOUNDING EDITOR

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Bruce Kelley-OTB *Award*...Bruce Roloson, W2BDR
Equipment Awards.....Geoffrey Bourne
J. Albert Moore Award .....Geoffrey Bourne
Taylor Award .....Pete Yanczer
Tyne Award.....Joe Knight
Television Award .....Richard Brewster

WHOM TO CONTACT

Please write legibly. Enclosing an SASE speeds replies.

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Ludwell A. Sibley

The AWA Journal is published approximately four times a year by and for members of the Antique Wireless Association. AWA is a non-profit historical society founded in 1952 and incorporated in the State of New York. *The AWA Journal* is available through AWA membership. Its issuance is subject to change from time to time as to frequency, content, and size. It is not liable in any way for any buying-and-selling transaction entered into as a result of its content.

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FROM THE EDITOR

Introducing "The Back Page," A Brand New *Journal* Column

Readers who have already looked at the back page of this issue will find the first in a series of provocative, instructive, odd, and maybe bizarre images being selected from the AWA Museum archives. They will be chosen and presented by Jim Kreuzer, N2GHD, AWA's Media Librarian. The idea for "The Back Page" was conceived because of the enthusiastic reception shown by readers for the De Forest crossword puzzle that was contributed by Jim and shown on the back page of the Winter issue. When we asked Jim if he'd be interested in taking over our back page to showcase additional interesting images, it was obvious that he had already been thinking of it in a very positive manner. You'll be seeing the results in each future issue of the *Journal*.

Jim Kreuzer's fascination with antique sets began in 1963 when he purchased his first radio, a Philco 90, at a white elephant sale for 25 cents. He collected a few battery sets from country auctions during the 1960s, but didn't begin serious collecting until 1974. From then until 1980, he and his wife Felicia collected battery sets of the 1920s and soon acquired a houseful of radios and associated collectibles. By 1980, their collecting interest had shifted to pre-1920 commercial wireless equipment—especially Marconi apparatus.

After receiving three years of schooling in technical electronics, Jim worked for 18 years as a diesel mechanic for Conrail. Then, in 1985, he formed "New Wireless Pioneers," and became a seller of rare and out of print radio, telegraph and electrical books. Jim is a member of the Radio Club of America and a respected authority on Marconi apparatus. He has acted as an appraiser for the Canadian Marconi Company and the Canadian National Museum of Science and Technology. He and Felicia own one of the most extensive wireless collections and electrical/wireless libraries in the country.

Help *The AWA Gateway* Support and Grow Our Hobby

Perhaps by now many of you have seen, or at least heard of, *The AWA Gateway*. It is AWA's free, online publication designed especially for newcomers to our hobby. Accessible to AWA members and non members alike, its aim is to stimulate interest in, and spread knowledge about, our hobby. As the *Gateway* cover motto promises its readers, it is "Your Entry to the Fascinating World of Vintage communications." Published quarterly between issues of *The AWA Journal*, *Gateway* is in its fifth year of publication and all back issues are in an online archive, from which they may be read directly or downloaded.

Gateway's content runs the gamut of antique radio topics, including broadcasting history, technical and aesthetic evolution of radio receivers, restoration techniques and radio collectibles. While the material has been selected to be suitable for beginners in the hobby, and the tone is easy-going, the articles are directed to the mature, technically-oriented reader. Be sure to recommend *The AWA Gateway* to those who show interest in your collection and/or restoration activities and would like to know more about the hobby.

Anyone interested in sampling *The AWA Gateway* is invited to visit the AWA

Be In the Know About *Gateway* Releases

Would you like to receive an e-mail notification each time a new issue of *The AWA Gateway* comes online along with an advance summary of its contents? To register for this service, just send an email to info@awagateway.com

website at www.antiquewireless.org, click on "media-pubs" at the top of the screen, select "*AWA Gateway*" from the drop-down menu, and click on "*Gateway* Downloads." This will access the current issue and all past ones. And be sure to browse *Gateway* yourself. There's a lot to look at!

— Marc Ellis, N9EWJ

From the Director

Some contributions to museum collections bring unexpected consequences. Take the recent gift by the government of the Voice Of America radio station located on the California coast. Our work crew traveled there to take pictures, catalog contents and collect historic program material. What they didn't consider was that the transmitter could not fit through our building's existing doors. As the landlord, I agreed to pay for a larger door so that AWA could save the cost.

I was reminded of a time in the 1940s when I saved my allowance to buy a Gibson Girl emergency transmitter from a surplus catalog. It came with a parachute to drop to the lifeboat of a downed pilot and an antenna to be raised by balloon or kite. I could hardly wait to take it to school and show it to my friends.

Little did I know there was a nearby Coast Guard station monitoring the Great Lakes for SOS calls! It was not long before some men in uniforms visited the school and we were busted. I had to promise never to turn the crank again. I hope to see you at the next convention and be sure to look for the V.O.M. gear!

Tom Peterson, Jr., *Director, AWA*

About Our Authors

ERIC P. WENAAS

What's "de" Story on the Spelling of Lee De Forest? Part II. Lee's Surname in Patents, Publications and the Press

Eric Wenaas has had a lifelong passion for antique radios, beginning with his first Radiola and crystal set given to him by family friends as a young man growing up in Chicago. He experimented with radio devices and repaired radios and televisions as a hobby while in high school. He then studied electrical engineering at Purdue University, graduating with B.S. and M.S. degrees. Wenaas went on to the State University of New York (SUNY) at Buffalo where he earned a Ph.D. degree in Interdisciplinary Studies in the School of Engineering. After graduating, he spent most of his career at Jaycor, a defense company in Southern California—first as an engineer and later as the President and Chief Executive Officer.

Upon his retirement in 2002, he set out to research the early days of wireless and document interesting historical vignettes based on original materials of the era. He has written numerous articles for the *AWA Review,* the *AWA Journal* and *Antique Radio Classified. In* 2007, he published the critically acclaimed book *Radiola: The Golden Age of RCA—1919-1929.* It covered the early history of RCA and included the formative years of the Marconi Telegraph Company of America. For this work, he received the AWA Houck Award for Documentation in 2007. He is a lifetime member of the AWA and a past member of both the IEEE and the American Physical Society. Dr. Wenaas resides in Southern California and continues

(continued on page 13)

MEMBERSHIP NEWS

***AWA JOURNAL* POLICY ON PROMOTING EVENTS:** The *AWA Journal* is pleased to list the meets and meetings of any established antique radio organization, whether or not it is associated with the AWA. Send your information to Marc Ellis, Editor, *AWA Journal*, P.O. Box 1306, Evanston, IL 60204-1306. E-mail mfellis@alum.mit.edu. Closing date is six weeks prior to first day of month of issue.

Information About AWA and Other Events

RADIOFEST 2015 (NEW DAYS)
July 31 to August 2

At a new location: Quality Inn, 300 S. Frontage Rd., Burr Ridge, IL, 660527; Room reservations, 1-630-325-2900; Request the ARCI discounted room rate to obtain rate of $79-$89 per night. Radiofest theme: Zenith Radio Company. The Main Auction starts on Friday evening at 6:30 p.m. The Swap Meet opens on Saturday morning at 7 a.m. Equipment contest viewing Saturday 4 p.m. to 9 p.m. The Saturday Evening Banquet (6 to 9 p.m.) will include entertainment by "Those Were The Days Radio Players." The Donation Auction, a free Seller's Raffle and the Swap Meet will close the show on Saturday morning.

Radiofest fees are: First selling space $45.00 in advance, $50.00 on site, $35.00 each additional, Banquet tickets (pre-registration only) $45.00 each, two for $85.00. Eight foot table rentals: $12.00 each (pre-registration only). For auction fees and additional info, please see the ARCI website at http://www.antique-radios.org.

NIAGARA FRONTIER WIRELESS ASSN.
August 1

The annual summer meet will be at the Amherst Museum, 3755 Tonawanda Creek Rd., Amherst, N.Y. (North of Buffalo). From the NY State thruway, take exit 49 (Transit Rd., Rt 78) north nine miles. Left on Tonawanda Creek Rd. just before entering Niagara County. Proceed two miles west to the museum. The meet will be in the parking lot. Flea Market opens at 8 a.m. and runs through noon. No fee to set up or sell. Auction begins at about 11.00 a.m. and there will be a donation auction to support the museum. The museum exhibits open at noon and include a room of early radios and TVs. Free coffee and donuts. Lunch available. More info: www.nfwa.org.

AWA ANNUAL CONVENTION
August 11 to 15

Theme: *International Shortwave Broadcasting and the Receivers That Listen*. At the Rochester Institute of Technology Conference Center. See special Convention insert in this issue. Visit www.antiquewireless.org for more details as they become available.

Recurring Meetings

• The Antique Radio Club of Illinois (ARCI) — Meets bi-monthly. Meets generally held at the American Legion Hall, Carol Stream IL but meets in June in conjunction with the 6-Meter Club of Illinois at the DuPage County Fairgrounds and once per year for Radiofest at the Willowbrook Illinois Holiday Inn. Check website for schedules, details and maps.) Contacts: President, Olin Schuler oshuler@comcast.net; Club Public Contact, Art Bilski, 630-739-1060, clubinfo@antique-radios.org. Website www. antique-radios.org.

• Antique Radio Collectors of Ohio — meets first Tuesday of each month at 2929 Hazelwood Ave., Dayton, OH (4 blocks east of Shroyer Rd. off Dorothy Lane) at 7 p.m. Also annual swap meet and show. Membership: $10.00 per year. For more info, contact Karl Koogle: mail to above address; phone (937) 294-8960; e-mail KARLKRAD@ GEMAIR.COM.

• California Historical Radio Society — For info on current meetings, call the CHRS hotline: (415) 821-9800.

• CARS, the Cincinnati Antique Radio Society — Meets on the third Wednesday

Nominations for AWA Awards

It is time to nominate candidates for six prizes to be given at the AWA 2015 Convention.

The **AWA Houck Award for Documentation** goes to an AWA member who has written several original articles on radio development or history in *The AWA Journal, AWA Review*, or other publication. (This can include a book on a related subject.) Send your selection to the Houck Awards Administrator, giving your reasons why the nominee should receive the Award. The address: Barney Wooters, 8303 E. Mansfield Ave., Denver, CO 80237.

The AWA Houck Award for Preservation is for a member who, through personal accomplishment, has acquired, and preserved by documenting, an outstanding collection of radio artifacts. Send your selection to the Houck Awards Administrator, giving your reasons why the nominee should receive the Award. The address: Barney Wooters, 8303 E. Mansfield Ave., Denver, CO 80237.

The Bruce Kelley-OTB Award is given to the member who publishes in *The AWA Journal* an article judged to be the most outstanding, original, historical presentation of the award year. For this year, articles in the Summer and Autumn 2014 and Winter 2015 issues will be considered. The articles must have been written specifically for publication in *The AWA Journal,* not reprinted from other journals. All AWA members are eligible for this award except those on the Award Committee and the *Journal* Editor. Simply identify the article and the nominee, with reasons for your selection; send to committee chairman Bruce Roloson, 2 Walnut Pl, Apalachin, NY 13732.

The J. Albert Moore award is a companion to the Bruce Kelley-*OTB* Award. The award comes to us through The Antique Radio Club of America, which was merged into AWA a few years ago. It was originally given for the most outstanding article (any category) contributed to the *ARCA Gazette* during the publication year. Though the award continues a memorial to Mr. Moore's contributions to ARCA, it has been re-oriented as a companion to the Bruce Kelley-*OTB* Award—honoring articles that do not fall into the historical category considered for the latter.

And so the Moore award will be given "…to the article, or series of articles, deemed to be the most outstanding of those dealing with radio hardware (radio sets, radio systems or components) printed in *The AWA Journal* during the award year. Eligible articles include those dealing with troubleshooting, restoration, performance evaluation, identification methods, and history." For this year, articles in the Summer and Autumn 2014 and Winter 2015 issues will be considered. All AWA members are eligible for this award except those on the Award Committee and the *Journal* Editor. Simply identify the article and the nominee, with reasons for your selection; send to committee chairman Geoff Bourne, 405 8th Ave, Saint Albans, WV 25177.

The **Taylor Award**, in memory of John Taylor, RCA TV Developer, is for "preserving television history." Send nominations to Bruce Roloson, 2 Walnut Pl., Apalachin, NY 13732 or broloson@ stny.rr.com

The Tyne Tube Award is presented, in remembrance of Gerald F.J. Tyne, for contributions to preserving or documenting the history of tube technology. Nominations may be sent, with supporting reasons, to administrator Joseph Knight, jaknight@mac.com.

of each month at Gray's History of Wireless Museum, which is part of The National Voice of America Museum of Broadcasting, Inc., located in a building that is now on the National Historic Register at 8070 Tylersville Road, Westchester, Ohio. 45069. For more information contact Bob Sands at (513) 858-1755.

• Carolinas Chapter of the AWA — Hosts four "mini-swap-meets" each year (in January, May, July and October) plus an annual conference, "Antique Radio Charlotte," on

the 4th weekend in March. Executive committee meets approximately quarterly. For more info, visit the website at CC-AWA.ORG or contact Ron Lawrence, W4RON, Chapter President, P.O. Box 3015, Matthews, NC 28106-3015; phone (704) 289-1166; e-mail W4RON@carolina.rr.com.

• Central Ohio Antique Radio Assn. – Meets on the third Wednesday of March, June and September at 7:30 p.m. Swap meets: "Cabin Fever" in January and outdoor tailgate in July. December Christmas party. For more info contact Barry Gould at 614-442-1518 or Dave Poland at 614-890-5422 or http://coara.org/.

• Delaware Valley Historic Radio Club — Meeting and auction begins 7:30 p.m. on the second Tuesday of each month. Location: Telford Community Center on Hamlin Ave. in Telford, PA. Annual dues: $15.00, which includes a subscription to the club's monthly newsletter *The Oscillator*. For more info contact Delaware Valley Historic Radio Club, P.O. Box 5053, New Britain, PA 18901. Phone (215) 345-4248.

• Houston Vintage Radio Association (HVRA) meets the fourth Saturday (January thru October) at Bayland Park 6400 Bissonnet, 9 a.m. in SW Houston. Each meeting includes an auction and program. Annual two-day convention held in February includes three auctions, old equipment contest, technical talks, swap meet, and awards banquet. One day MEGA auctions held in the spring and fall. A newsletter, *The Grid Leak*, is published bi-monthly. Event postings, announcements, photos and other features are available on HVRA website: www.hvra.org. Membership is $20/yr. Address: HVRA, P.O. Box 31276, Houston TX 77231-1276 or call Bill Werzner, 713-721-2242; email: werz1943@gmail.com.

• Hudson Valley Antique Radio and Phono Society [HARPS] meets the 3rd Friday of the month 7:30PM at the Episcopal Church of Suffern Annex, 65 Washington Ave., Suffern N.Y. 10901 for info contact Rev. Dale Cranston at (845) 357-1615 or dale.cranston@gmail.com.

• Indiana Historical Radio Society — Active since 1971. Meets in Feb. (Lawrence), May (2-days, Kokomo) and Oct. (Greenfield). Flea market, old equipment contest, and auction at all events. Meet details and club info at website www.indianahistoricalradio.org. $15.00 annual dues includes the IHRS Bulletin published quarterly. Contact Herman Gross, W9ITT, 1705 Gordon Dr., Kokomo, IN 46902, 765-459-8308, email w9itt@comcast.net.

AWA LIFE MEMBERSHIPS ARE NOW AVAILABLE

Cost: $700 (U.S.), $800 (elsewhere.) Make out your check to Antique Wireless Association and send it to AWA Membership, P.O. Box 421, Bloomfield, NY 14469-0421. E-mail awamembership@ rochester.rr.com.

• London Vintage Radio Club — This Ontario, Canada club meets in London on the first Saturday of January, March, May, and November. Annual flea market held in Guelph, Ontario in June. Contact: Dave Noon, VA3DN, 19 Honeysuckle Cr., London, ON N5Y 4P3, Canada. Email: va3dn@execulink.co. Website: http://lvrc.homestead.com/index.html.

• Mid-Atlantic Antique Radio Club (MAARC) — Meets monthly, usually on the third Sunday of the month at the Davidsonville Family Recreation Center in Davidsonville, MD. (But meets once or twice a year in Northern Virginia—check website for schedules, details and maps.) Contacts: President, Steve Hansman, 855 Arundel Drive, Arnold, MD 21012, (410) 974-0561, email: shans01a@ comcast.net; Membership Chair, Geoff Shearer, (703) 818-2686, email: gshearer2@verizon.net. Website www.maarc.org.

• The New Jersey Antique Radio Club — Meets the 2nd Friday of the month 7:30 p.m. at either Info Age 2201 Marconi Rd. Wall Township N.J. 07719 or Bowen Hall, Princeton University. We hold three annual swap meets and four seasonal repair clinics. Visit the club's website for details www.njarc.org or contact NJARC President Richard Lee (914) 589-3751 or president@njarc.org.

• Northland Antique Radio Club (Minneapolis/St. Paul) — hosts four events with swap meets each year (in February, May, September and November) including an

annual conference, "Radio Daze," for two days in mid-May. Annual dues are $12.00, which includes a subscription to the club's quarterly newsletter. For more info, visit our website at www.northlandantique-radioclub.com.

• Northwest Vintage Radio Society — Meets the second Saturday of each month at Abernethy Grange Hall, 15745 S. Harley Ave. Oregon City, OR. Meeting starts at 10:00 a.m. Membership $25.00 per year. Guests welcome at all meetings and functions except board meetings. Spring show, the second Saturday in May. For more information, contact Mike McCrow 503-730-4639; e-mail: tranny53@comcast.net.

• Oklahoma Vintage Radio Collectors — Meets second Saturday of each month, (except for April, October, and December), at Hometown Buffet, 3900 NW 63rd St., Oklahoma City, OK. Visitors welcome. Dinner/Socializing, 6 p.m., meeting, 7 p.m. Swap meets on second Saturday in April and October at 8 a.m., Midwest City Community Center, 100 N. Midwest Blvd., Midwest City, OK. Membership $15/year including monthly *Broadcast News*. Info: contact Jim Collings at (405) 755-4139 or jrcradio@cox.net. Website: www.okvrc.org.

• Ottawa Vintage Radio Club — Usually meets the second Wednesday of every month (except July and August) in the Conference Room, Ottawa Citizen, 1101 Baxter Rd., Ottawa, Ontario, Canada. Auctions in October and May. Call Paul Guibord (613-523-1315), or check www.ovrc.org for details.

• The Pittsburgh Antique Radio Society welcomes visitors to our Saturday flea markets, contests and clinics held at least four times yearly. A fall auction is included in

HF Net Annual Luncheon

The annual AWA luncheon was held again this year on May 21 at Peddler's Village in Lahaska, PA. The usual parking lot tailgating took place and this year we had a special presentation by John Dilks, K2TQN on the life and accomplishments of Ed Raser, W2ZI. The photo shows (L-R) Mary Ann Kitchen, daughter of K4KRE; Vern, KB3RQE; Paul, K4KRE; Roy, WA2TWS; Floyd, W3OLV; Inge, XYL of KB3RQE; Joe, W3GMS; Marjorie, XYL of W2DGB, Pete, NL7XM; Bill, W2DGB; Stu, W2AO; Joe, N3IBX; Charles Blanding; Ed Raser Jr.; John, K2TQN; Doug, WA3DSP. Attending but not pictured, Sherry, XYL of K2TQN; Janice, XYL of NL7XM; Joyce, XYL of Charles Blanding; Victoria, XYL of W2AO; Lyn, XYL of WA3DSP; John Tyminski, and Jocelyn, XYL of N3IBX. All of the photos for this and past years can be viewed at http://crompton.com/hamradio/

September and our annual luncheon program is on the first Saturday in December. An annual Tri-State Radio Fest is held in April. Our journal, *The Pittsburgh Oscillator*, is mailed quarterly. For more information visit us at http://www.pittantiqueradios. org, email President Chris Wells at radioactive55man@comcast.net, or phone Treasurer Tom Dixon at 412-343-5326.

• Society for Preservation of Antique Radio Knowledge (SPARK) — Meets monthly at Donato's Pizzeria, 7912 Paragon Rd., Centerville, OH. Annual swap meet. Membership $15/yr. Write SPARK Inc., c/o Dan Casey, 10075 Morrow-Rossburg Rd., Pleasant Plain, OH 45162 or call Dan Casey at (513) 265-8466 or e-mail dansradioland@ gmail.com

• Texas Antique Radio Club — Meets alternate months in Kyle and Shertz, TX. Contact: Doug Wright, 625 Rolling Hills Dr., Canyon Lake, TX 78133. Email: dwjw@gvtc.com; website www.gvtc.com/~edengel/TARC.htm.

• Vintage Radio and Phonograph Society (VRPS) meets monthly on the third Saturday. Located in the Dallas, Fort Worth Metroplex, our current activities are annual convention, auctions, swap meets, repair training sessions and monthly programs. For details visit our website www.vrps.org, or by contacting VRPS President Jim Sargent at (817) 573-3546 or bsargent@swbell.net.

Summary of Minutes — AWA Board Meeting

The meeting was called to order by Deputy Director, Robert Hobday at 12:33 p.m. on May 3, 2015, in the Conference Center of the AWA Museum Complex in Bloomfield, NY. Present were fourteen officers and trustees. Deputy Director Bob Hobday chaired the meeting. A quorum was declared.

Hobday reported on the very successful auction on May 2, conducted as part of the annual Spring Meet. More than 70 visited the AWA Museum in the morning. Ed Gable and Dr. Tom Ely have retired after many years in Membership Services. The Board expressed its appreciation to Ely and Gable for their years of dedicated service. Caroline MacMillen, who continues to serve in the Max Bodmer Library, will assume responsibilities in Membership Services. Sandy MacMillan has been appointed Registrar, and Lynn Bisha will become Assistant Registrar. Warren Wiedemann will assume responsibility for the AWA membership telephone response line.

Hobday presented the interim Financial Report. The loss to date of approximately $22,000 has been reduced by $12,000 as the result of the recent auction and Spring Meet. Programs must be designed to increase revenues, such as the use of the Museum for receptions and meetings by outside groups. This will become increasingly possible with the completion of Phases II and III of the Museum.

Bruce Roloson, Curator, presented the Museum Report. This year's donations to the collection have skyrocketed. The purpose of the recent auction was to process those items that are duplicates to the collection. The second floor of the storage area of the Conference Center is now complete and will accommodate storage of the recent Western Union collection, the Schaumleffel collection and many items from the Museum formerly located in the old Academy Building. This shift will clear the middle of the Museum for the Phase II build-out to accommodate new exhibits, such as the Collins VOA transmitter and "telegraph office" installations.

Richard Neidich requested the Accession Committee, a standing committee, to begin reporting annually to the Board. In discussion, Roloson and Lynn Bisha (Assistant Curator) reviewed the steps involved in donation intake and official accession into the collection. Ten specific rules apply to accessed items under New York State law. Roloson noted that the organization's present processes have become much more organized in recent years. Hobday added that the recent auction and the ongoing eBay

DeFOREST CROSSWORD SOLUTION

In the previous issue of the *Journal*, we ran a vintage crossword puzzle on our back page. Sent to us by Jim Kreuzer, AWA's Media Librarian, it was originally published for advertising purposes by the De Forest Radio Company. We didn't have an answer key, but promised to publish one in this issue if a reader could provide it. Tim Barrett, J. Perry Hannah, Larry Szendrei, Joseph Morris, Paul Jacobs, Andy Ooms, Joe Morris, John Morales, Phil Howell and Jerry and Marsha Simkin sent solutions. While all the answers looked correct, Jerry and Marsha took the prize for neatness and we are publishing their solution here. Thanks to the interest shown in the puzzle, Jim has graciously agreed to provide an interesting curio photo for our back page beginning in this very issue. Also check this issue's "From the Editor" for more information.

sales are working well to help control the volume of intake. Everything received by the Museum within the last three years has been barcoded and entered into the database. Hobday and Peterson noted that these processes compare well with other regional museums with far larger budgets. Roloson concluded that the Museum is much closer to its goals than it has been in years.

Richard Neidich presented the Membership Report. Some upcoming publication dates will be expedited owing to winter illnesses. The updated online *Gateway* edition will be available immediately. Volume 28 of the *Review* is forthcoming. Information online about the upcoming Convention in August has been tested and is now available to the membership.

Neidich has edited and updated 180 pages of the AWA website. The website is now receiving 1,000 hits per day, worldwide. New photos of the Museum will be added after completion of Phase II. Email lists will be created to better serve the membership and help provide more access to the Museum.

Ron Roach presented the Operations Report. The contractor chosen to move the VOA transmitter and proceed with Phase II has worked efficiently. The project should be finished by the August deadline. One year of quarterly articles about the Museum have now appeared in the East Bloomfield Town Newsletter. Karen Noske will make her second presentation on "The Iconic Women of Radio" and speak on the contributions of Hedy Lamarr (1914-2000). The AWA will be represented at the local RARA Hamfest on June 6 and the Genesee Airshow on July 12.

Hobday presented the Deputy Director's Report. The Development Fund presently stands at $178,620. Within the past six months eBay sales have grossed $6,365, and the feedback rating has been 100% positive. Ned Asam reports that the AWA Museum Store now has a considerable following.

Future budgets for advertising will include ads focused at potential visitors to the Museum in addition to the traditional radio collector. The *Finger Lakes Journal* has been added to the marketing mix. The Museum is present on the Monroe County VisitRochester website and has experienced 1,500 hits. The AWA is also a member of the Ontario County Visitors Bureau. Several tours are generated by the Ontario County Visitors Bureau, and eleven have been conducted since November. More are planned for summer 2015.

David Bart presented the AWA Press Report. The IEEE archive has relocated from Rutgers University to the Stevens Institute of Technology. Bart is also directing the

AWA NETS (EASTERN TIMES)

SUNDAY:
7237 kHz, SSB, 12 noon, NCS: Various
3840 kHz, AM, 7PM held only during EDT
3837 kHz, AM, 4PM held only during EST
NCS: Joe, W3GMS

MONDAY:
1945 kHz, SSB or AM, 8PM, NCS: N3IBX

MONDAY-WEDNESDAY-FRIDAY:
The AWA Bruce Kelley Memorial Net
3837 kHz, SSB, 9:30AM
NCS Monday, Jeff-W3JW
Wednesday, Roy-W2TWS
NCS Friday, Doug-WA3DSP

Now! A Valuable Benefit For AWA Members

Radio Daze at www.radiodaze.com is offering current AWA Members a discount of 8% on all purchases. Now you can buy all your restoration supplies and receive a special AWA members-only discount. When ordering for the first time, please use the coupon code AWAMEMBER. Once you use that coupon code, your current AWA membership will be confirmed and your online account at Radio Daze will be coded with the discount for future purchases. This special 8% discount is only available to current AWA members. Free shipping will be provided for purchases of $150 or more.

publications of the RCofA. Its publications are now in digital form, which facilitates easier access by younger audiences. Maintaining links with these organizations is important for the AWA. An exhibit on "Women in Radio" has just been completed.

Roy Wildermuth presented the Convention Report. The AWA is looking forward to continued international attendance. This year's featured film is "The Imitation Game," and Tom Perera will talk about the film's connection to the actual activities of the cryptanalyst, Alan Turing. This year's theme will be "VOA/International Broadcasting and the Radios that Listened."

The Board meeting adjourned at 2.56 p.m.

Respectfully submitted by
William L. Hopkins, Secretary

MORE ON RADIO ROSE
(See "The Back Page", page 76)

The following is an exact transcription of the press release, dated 1/28/25, that accompanied Radio Rose:

"RADIO ROSE" NEW BABY THAT SINGS WHILE YOU WALK THE FLOOR WITH HER…BUT STOPS WHEN YOU WISH. (THAT'S MORE THAN A REAL BABY WILL DO.

Radio Rose, the new doll that tunes in on any station within a liberal radius and sings or plays or lectures while you walk the floor with her makes her bow.

Rose is the newest brainchild of "The Lady Edison" (Miss Beulah Louise Henry of New York), the foremost woman inventor and is a complete self contained three tube radio set, with a loud speaker cleverly concealed within the body, the unit being in the head and the bell of the horn just inside the chest so that Rose speaks from the heart.

A unique feature is that the radio baby cannot get "a cold in the head," for the unit in the head is carefully packed in cotton wool, so that the set will function outdoors in any weather.

AUTHORS, *continued from page 5*

to enjoy collecting radios, researching the early days of wireless and writing articles.

VERNON YEICH
Effective Q-Multiplication for Complex Filters or the Regenerative CW Receiver on Steroids

Vernon served in the US Navy as an Electronics Technician during World War II. He received a BS in physics at Johns Hopkins University in 1968. Later, he held the position of Engineer at the Westinghouse Electric Company, retiring in 1991. His avocations have included amateur radio, choral singing, downhill skiing and active private aviation.

At The Museum

Visit us on the Internet at http://www.antiquewireless.org

MUSEUM MANAGEMENT AND STAFF

Thomas Peterson, Jr.
Director

Robert Hobday, N2EVG
Deputy Director

Bruce Roloson, W2BDR
Curator
Accesion Committee Chairman

Ronald Roach, W2FUI
Operations Manager

Lynn Bisha, W2BSN
Associate Curator
Assistant Registrar

Alexander MacMillen
Registrar

Felicia Kreuzer, KA2GXL
Assistant Curator

James Kreuzer, N2GHD
Assistant Curator
Media Librarian

Roy Wildermuth, W2IT
Assistant Curator

Ed Gable, K2MP
Curator Emeritus
Historian

Stan Avery, WM3D
Treasurer
Museum Store Manager

MUSEUM CONTACT

For all inquiries about the Museum and its operation, contact Museum Curator Bruce D. Roloson, W2BDR, Curator, P.O. Box 478, 2 Walnut Place, Apalachin NY 13732, e-mail broloson@stny.rr.com. *The A.W.A. Electronic Communication Museum is an IRS 501(c)3 charitable organization.*

From Bruce D Roloson, W2BDR, Curator, AWA Museum

We have completed the addition of a second level to the Conference Center storage building, and shelving has been installed. Now the artifacts stored at the back of the Museum building can be moved to the Conference Center storage building. The Voice of America station will be set up in the vacated area of the Museum, for the August Convention, as soon as the space is made available. A new, taller door was installed in the Museum building, allowing the station components to be brought in. They are now stored temporarily at the back of the Museum.

The new shelving units in the Media Center, supplied thanks to a generous donation from one of our members, are being populated and reorganized by Caroline MacMillan. This will complete the expansion of the library.

We are in the design phase of the future Telegraph display showing the story of telegraph. Along with the telegraph we will include teletype and telephone exhibits. The "Sherman Wolf and Stu Davis Collection" will be heart of the display.

The Spring Meet this year featured a surplus auction. The items sold there were duplicate pieces as well as equipment not useful to AWA. This auction will be a feature of every future Spring Meet. The theme of the 2015 Convention will be the VOA and its effects on the world during and after WWII. A display on this subject will be installed in the Museum for the Convention. Remember the Convention will take place August 11-15, 2015.

Other events being planned for the new Museum in 2015 will be found on our website: www.antiquewireless.org.

From Ron Roach, W2FUI, Operations Manager, AWA Museum

Chrisanntha Construction has completed the installation of the second floor in the Conference Center storage area. A donation of over 120 linear feet of library shelving from the University of Rochester was added to similar library shelving already in storage or in use at the back of the Museum. This housed all of the boxed artifacts transferred to the second floor storage Museum was cleared for the construction of Phase II—including the new Voice of America station.

Twenty-five newly-purchased 4' × 8', 900-pound-load-bearing shelving units were purchased Museum.

The cleared back of the Museum allowed for the laying of the final plank flooring and the placement of the Voice of America transmitter and its associated Remote Audio Center in its final display configura-

tion. Two additional kiosks were added to display telegraphy, telephony and teletype. Free-standing shelving for additional artifact display in was also added in this area.

Crisanntha Construction also modified the garage door entrance area in the Conference Center to provide an expanded footprint for the lift as it elevates artifacts to the second level for storage.

The Veterans Park Annex was leased for a three-month period to pre-sort hundreds of artifacts for the Spring Meet sale and the special afternoon auction, which was held at Rhonda Jenner's Peddlers Antiques, the RARA Hamfest in June and the August Conference.

This might give you an idea of what our future telegraph display might look like. Can you name the very young actress who appears in the photo?

The AWA Chevrolet Suburban brake and fuel lines were totally replaced to allow the AWA to participate in the above Hamfest and resume collecting donated artifacts.

The installation of an additional 54 linear feet of library shelving in the Media Center provided much needed additional print storage space for the continuing influx of donated material.

On the evening of May 12th at the Museum, Karen Noske offered a second presentation in her series "The Iconic Women of Radio," featuring Hedy Lamarr, well-known radio and movie star and little known inventor.

From Bob Hobday, N2EVG, Deputy Director, AWA Museum

Artifact Collection and Record Keeping at the Museum

As a museum chartered by the State of New York, the AWA must follow state mandated collection procedures. As part of the chartering filing, the AWA provided our Board of Trustee with a *Museum Policy Manual for Department of Education approval*.

As each artifact donation is received, it is assigned a unique gift number. In recent years, each donated item is barcoded, photographed, and entered into the *PastPerfect* database. A donation receipt letter is sent to the donor acknowledging the donation(s) and requesting that the donor sign and return the letter to AWA. In the letter, the donor is advised that the donation is to become the unrestricted property of the AWA and may be used, displayed, sold, etc. for the benefit of the AWA at its sole discretion.

The item may remain the in gift status for some time unless the Accession Committee acts to access (formally vote) the artifact to the permanent Museum collection. While the artifact is in gift status, it may be used in any way beneficial to the activities of the Museum as determined by the Curator. This would also include the sale or trade of the artifact to benefit the Museum and its collection. To date, all items sold or traded by the Museum have been items in the gift status.

Depending on the nature of the donated item(s), historical significance, uniqueness, value as an artifact in our collection, condition, and similar attributes, the Curator(s) may propose to the Accession Committee

(continued on page 26)

The Item In Question

Spotlighting Noteworthy Artifacts From the Collection of The AWA Museum

BY WILLIAM HOPKINS, AA2YV • EMAIL: WHOPKIN4@NAZ.EDU

The Delano, CA Voice of America Transmitter

The Item

How does a transmitter with 250 kilowatt modulated input power, giving an effective 750 kilowatt output, strike you? Especially when this "Item In Question" was designed to transmit on frequencies between 3.95 and 26.5 MHz and retune to the antenna within 20 seconds? This is the biggest item the AWA Museum has received to date in so many meanings of the word.

The Collins model 821A-1 transmitter, together with its hefty (read "*heavy*") modulator and final amplifier tubes, now sits in the large storage bay of the AWA's new Conference Center in East Bloomfield, NY. It arrived there after traveling 2788 miles in a tractor-trailer and another large truck all the way from Delano (pronounced *deh-LAY-noh*), California, one of the transmitting sites of the Voice of America. There it was known as the Delano Relay Station.[1]

Absent are the expansive curtain array antennas[2], the feed line matching systems and the power supply. Clearly, this exhibit will not transmit anymore, but it will be lit up like a Christmas tree to simulate actual operation once it is ready for display to the public.

Let's look at some of the major features of this state-of-the-art (as of 1963) Collins transmitter installation.[3] First, it was constructed to be much more compact and as simple as possible in its electronic architecture and physical layout. Originally, its three basic sections (the high voltage vault, the high voltage enclosure with the RF and modulator sections, and the "control center") occupied only 800 square feet. In 1963, this meant that it took up no more space than the older transmitters designed for 50 kilowatts. There would be no floor ducts or overhead cable trays.

Safety features included an oil-immersed switch that had to be opened before any personnel could enter the power vault. Further, automatic switches could disconnect the 4160 volt primary power line as well as the high voltage DC input to the transmitter. The system had a fast acting "crowbar" circuit designed to short high voltage circuitry in the event of even slight arcing.

The newly-designed output tank circuit, with its harmonic filter, eliminated switched or variable coils of the older designs. Instead, tuned coaxial line segments and high voltage vacuum variable capacitors resonated the output to the antennas, all controlled by automatic servos for tuning and loading, all of which would provide at least 80 db. of harmonic attenuation.

The Collins Radio Company's specifications for this 250 kilowatt transmitter were: an allowable VSWR of 1.5:1; a high level AM and FSK signal; audio output choices between 600 and 150 ohms, balanced or unbalanced; an audio response within 1 db. from that at 1000 cps.; the power source using 3 phase wire at 4160 volts, plus-or-minus 3%, plus-or-minus 3 cps; and silicon rectifiers aiding overall reliability. The RF stage featured two 4CV100,000C tubes and one 4CX3000A tube. All this could amount to a combined weight (minus feedlines and curtain array antennas and towers) of 48,925 pounds (22,239 kilos).

The Installation

The U.S. General Services Administration released the radio to the AWA, through the preparation and work of members of the Collins Collectors Association. Both organizations have joined forces in "The Collins Radio Heritage Group" to accomplish this.

At least nine volunteers, including Collins and AWA people, gave of their time and money to assure the success of this project—including dismantling, loading and shipping the transmitter.

Jim Stitzinger was the shipping guru. He also drove the second, smaller truck that transported the console. It all arrived on Monday, June 23, 2014, at the Museum complex in East Bloomfield.

The GSA stipulates that the transmitter must be installed and ready to display within one year of its receipt. Ron Roach, AWA Operations Manager estimates that the footprint of the combined console room and transmitter rack area will require about 400 feet of floor space. Care will be taken to make the console room appear as it was, even down to the floor tiles.

The visitor will stand in the middle of this room-within-a-room, see the semi-circular array of control equipment and look beyond the console room windows to get a glimpse of the actual transmitter, a twenty-four foot long series of rack-mounted panels with their status lights and operational controls. The truly curious visitor can then exit the console room and see the equipment up close and from all sides.

The "Operation"

Those visitors to the Museum who may want to "fire up" the system in their imaginations, should first mentally select one of two crystal oscillators or maybe designate one of two external frequency sources. If this time traveler happens to be *you*, then simply press the "Tune Start" button. You will be able to do this either at the Diagnostic Control Panel or at an operator's remote console. Choose automatic or semi-automatic mode.

Next, tune the driver and the power amplifier output networks. Then you may want to touch up by monitoring the currents or discriminator outputs. Or, of course, you could do all of this remotely, as they called it, by cable up to 150 feet away from the Diagnostic Control Panel.

The DCP provides a wonderful visual display of the entire system, from the RF oscillator and audio inputs to the automatic tuning and alerts to any problems via the illuminated light displays—70 of them—all arrayed according to the simplified block diagram on the panels. Simply press the correct push-button control/s to bring things back where you want them. During this process you can observe the metering

Transmitter control panel and console during dismantling operations at Delano.

at the top of the panels, scaled to a decimal equivalent.

The History

In September 2007, the Voice of America station at Delano, also known as the Jack. R. Poppele Transmitting Station, ceased its international transmissions for good, having become victim to budget cuts in 2007, according to the Broadcasting Board of Governors.[4] Then, in March 2014, the site, together with the equipment went "on the block" for liquidation.[5] After negotiations, the GSA released this Collins transmitter with stipulations about its exhibit to the public; the Collins Radio Heritage Group team had only two weeks to make it all happen.

It may seem to some that this very large artifact, challenging for any museum to absorb, has little modern significance. How many Americans today know how the VOA's broadcasting of jazz music into Eastern Europe and Russia during the Cold War garnered a loyal following among those in the communist bloc who longed to create their own rhythms?[6] Or how the VOA system was implemented during the Second World War to counteract Japanese and German propaganda?

How many of us remember that, all told, the VOA network of stations in the U.S. alone comprised five stations, each with multiple transmitters and a withering list of round-the-clock news and cultural programming. Anyone wanting to listen to the VOA today needs only to go online.[7] Also, its history is very well represented through the breadth of electronically available information.[8]

All transmissions on this and other equipment at the Delano site, beaming mainly to the Asia Pacific rim and South America, were electronically sent directly from the VOA offices in Washington, D.C. No programs emanated live from the transmitter building.[9] (Obviously, the AWA Museum will be receiving no microphone for the transmitter, because there was none to donate.)

As our news feeds are telling us, the appreciation of the role of the VOA in history and its value for us today doesn't seem to fading. First, last summer the U.S. House of Representatives deliberated over a bill to change the mission of the VOA from its originally stated goal of reporting the news, straight, to becoming an arm supporting American "government diplomacy." In the opinion of many VOA journalists, this would run counter to that VOA's original charter simply to "report."[10] According to Alan Heil, a former VOA correspondent, journalists also regularly observed the internal "two source" rule to insure accuracy of reporting.[11]

Second, on July 16, it was reported that Russia intended to reactivate its old listening post in Lourdes near Havana, with its vast antenna array, to listen in on the U.S.[12] One month later, Michael McFaul, former ambassador to the Russian Federation, in an editorial called for a counter to the new Russian propaganda over events in the Ukraine, by "providing more resources to traditional channels like Voice of America," to accompany the new sources, like blogs.[13]

Most recently, David Ensor stepped down this April after directing the VOA since 2011, and Andrew Lack left the agency's Broadcasting Board of Directors after only 42 days on the job. S. Enders Wimbush, a former member of the Board, maintains that the "U.S. international broadcasting is not taken into account at any level of the government when strategy dealing with the national interest and foreign policy is being put together."[14] Current events, it seems, promise to shine a spotlight on this AWA Museum exhibit.

The Visit

This is why the upcoming exhibit of the Collins transmitter from the Delano site promises to be a significant event for the extensive museum community in New York. For sure, this artifact from the world of wireless, an example of quality American engineering at Collins, will draw its radio enthusiasts. Much more importantly though, the general public will come to ex-

perience an *idea*, to imagine what it was like to bring the world's and America's news to listeners along the Pacific Rim and South America. They will stand on the replicated tiled floor in the console room, hear historic recordings, listen to music, see the vast bank of multi-colored status lights and operational controls, and maybe they will seriously reflect why a free nation must value a free press.

References

1 In the United States, there were five VOA transmitter sites: Delano CA; Dixon, CA; Butler County, OH; Greenville, NC; and Hawaii. Fred Wulff, "A Brief Technical History of the VOA Network," in *The Old Timer's Bulletin*, Vol. 36, No. 4, Nov., 1995; Walter R. Roberts, "The Voice of America. Origins and Recollections," in: http://www.unc.edu/depts/diplomat/item/2009/1012/fsl/roberts_voice.html

2 *Antennas, Satellite Broadcasting, and Emergency Preparedness for the Voice of America*, National Research Council (U.S.). Committee on Antennas, Satellite Broadcasting, and Emergency Preparedness for the Voice of America. Washington, D.C.: National Academy Press, 1988.

3 Brochure of the Collins Radio Company, announcing the 821A-1 Transmitter.

4 A comprehensive book on the VOA remains to be written. See interview of Howard G. DeLong by C.B. Croce in 1989 (c2008 ADST) at: http://www.adst.org/OH%20TOCs/DeLong,%20Howard.toc.pdf

5 James O'Neal, "VOA Delano Station Goes on the Block," in *Radio World*, at http://www.radioworld.com/article/voa-delano-station-goes-on-the-block/269252

6 Zbigniew Granat, "Crossing the Curtain. Polish jazz meets poetry in the europäische Heimat," in *Jazz Research Journal*, Vol. 6, No. 2, 2012, pp. 201-227, ISSN 1753-8637(online: Equinox online, doi:10.1558/jazz.v6i2.201, ISSN 1753-8645); Penny M. von Eschen, *Satchmo Blows up the World: Jazz Ambassadors Play the Cold War*, Cambridge: Harvard Univ. Press.

7 At present the VOA supports 43 language services and serves an estimated 141 million people worldwide.

8 See overview at http://en.wikipedia.org/wiki/Voice_of_America

9 Today, the Voice of America headquarters is located at 330 Independence Avenue SW, Washington, DC, 20237.

10 Charter points: 1) VOA will serve as a consistently reliable and authoritative source of news. VOA news will be accurate, objective, and comprehensive. 2) VOA will represent America, not any single segment of American society, and will therefore present a balanced and comprehensive projection of significant American thought and institutions. 3) VOA will present the policies of the United States clearly and effectively, and will also present responsible discussions and opinion on these policies. (Public Law 94-350)," at: http://www.insidevoa.com/info/voa-charter/2322.html ; News source at: Ron Nixon, "House Measure to Change Voice of America's Mission is Drawing Intense Debate," in *New York Times*, (Politics Section), May 20, 2014.

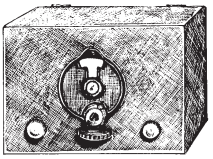
11 http://en.wikipedia.org/wiki/Voice_of_America#.22Two-Source_Rule.22

12 Andrew Kramer, "Russia Plans to Reopen Post in Cuba for Spying," in *New York Times*, (Americas Section), July 16, 2014.

13 Michael McFaul, "To Beat Putin, Support Ukraine," in *New York Times*, (Opinion Pages), Aug., 6, 2014.

14 Ron Nixon, "Turmoil at the Voice of America is Seen as Hurting U.S. Ability to Counter Propaganda", in *New York Times* (U.S. Section), April 15, 2015.

Amateur Radio



EDITED BY **TIM WALKER, W1GIG**, 19 WOODSIDE AVE., WESTPORT, CT 06880, W1GIG@ATT.NET, *PLEASE INCLUDE SASE FOR REPLY.*

Kelley, Cundall, AM and Rollins Results

Greetings to all AWA Amateurs! Since that sounds a bit formal for me, let me just say that it is Spring as I write this and it is time to think about the upcoming Convention. But first, I have the complete report on our four "on the air" events. Two were highly successful and the other two not so much so.

From the top: The Bruce Kelley Memorial had about the same number of participants as has been the case for the last several years. We had some new folks including a young man who was Elmer'd by Harold Borchers. Harold put him on the air from his station and he looks right at home (see the photo).

The Linc Cundall did not raise as many as we usually get, but was won handily by a newcomer, AA9DH. The AM QSO Party turned out quite a crowd if you look at the totals from the W2AN logs, but only a few logs were sent in. We'd love to see more to get a better idea of who is participating. The Rollins contest was ignored by most of our members. More entries with any and all gear from the 40s and 50s are welcome. Let's do better next year!

Moving on to the Convention, we will have plaques for the winner of each event. These will be distributed during the Amateur Radio meeting. If you are a winner but unable to be there, let me know and your prize will be shipped to you. Remember it is time to start sorting and packing for the flea market if you are a seller, or making a shopping list if you are a buyer.

See you there!

Tim

12 year old Joe Weber KC9WYV worked the entire first weekend of the 1929 QSO party from the shack of his "Elmer," Harold Borchers KB0ROB. Next year he hopes to operate from home with his own rig.

Results of the Bruce Kelley Memorial 1929 QSO Party December 2014

By Scott Freeberg, WA9WFA

The 31st Bruce Kelley Memorial 1929 QSO Party was held on the first two weekends of December 2014 with approximately 67 stations participating. The winner this year is Paul N1BUG from Milo Maine with a high scoring 87 contacts! 2nd place was snagged by Rex K0KP from Duluth MN with 70 contacts; 3rd place was a tie between Bill, K4JYS, and Steve, N8YE, from Marietta OH—both duking it out with 68 contacts. The TOP CONTENDERS look like this: N1BUG (87), K0KP (70), K4JYS (68), N8YE (68), W0LS (53), K0KCY (45), W0LGU (44), KB0ROB (40), W0CWU (38).

Twenty five U.S. states and two Canadian provinces were heard this year. Forty nine logs were mailed/emailed in. Thanks to those who sent in their logs. I encourage you to submit your log no matter how many or how few contacts you made. We all

Submitted Logs

District	Call	Transmitter	Qth	40m	80m	160m	Total
W1	N1BUG	TNT	ME	32	48	7	87
	NE1S	HART	ME	21	20	-	41
	W1ZB	TNT	MA	16	24	-	40
	NV1X	HART	VT	11	12	-	23
	NF1O	HARTLEY	NH	0	11	-	11
	W1GIG	TPTG	CT	2	5	-	7
W2	W2AO	HART	NY	11	19	-	30
	WT2W	HART	NY	13	7	-	20
	AA2YV	HART	NY	-	15	-	15
	W2LB	HART	NY	10	2	-	12
	W2VDX	TGTP	PA	8	1	-	9
	WA2OVJ	HART	NY	-	1	-	1
	WB2AWQ	HART	NV	5	1	-	6
W3	N3GJ	HART	PA	19	20	-	39
	W3BYM	TNTMD	14	12	-	26	
	W3FJJ	TNT	DE	8	11	-	19
	WA3YNW	HART	MD	-	8	-	8
W4	K4JYS	MEISSNER	NC	31	33	4	68
	N4GJV	HART	NC	5	16	3	24
	K4CHE	HART	DE	17	4	-	21
	W4NTO	HART	SC	0	12	-	12
	K4LJH	HART	VA	-	11	-	11
W6	WA6VYN	TNT	CA	1	-	-	1
W7	KK7UV	MT	8	11	1	20	
	W7LNG	TNT	OR	5	4	-	9
	K7SF	TNT	OR	6	-	-	6
W8	N8YE	TPTG	OH	23	45	-	68
	WA8DOF	MOPA	MI	5	17	2	24
	W8AU	TNT	OH	-	5	-	5
	W8KGI	MOPA	NM	1	12	-	13
W9	N9HAL	HART	WI	9	15	-	24
	AA9DH	HART	IL	15	9	0	24
	W2ICE/WA9WFA	COLPITTS	MN	10	28	2	40
	WB9WHG	MOPA	WI	5	8	-	13
	N9OB	HART	WI	-	14	-	14
W0	K0KP	HART	MN	26	36	8	70
	W0LS	HART	MN	17	29	7	53
	K0KCY	MOPA	MN	15	27	3	45
	W0LGU	MOPA	MN	20	24	-	44
	KB0ROB	MOPA	MN	17	19	4	40
	W0CWU	HART	MN	11	22	5	38
	KC9WYV	MOPA	MN	7	20	-	27
	KE0Z	HART	SD	-	20	-	20
	KI0DB	MOPA	MN	-	19	-	19
	W0VLZ	TNT	MN	-	16	-	16
	AB0CW	HART	CO	-	13	-	13
VE	VE3AWA	TNT	ONT	10	26	1	37
	VE3GRO	HART	ONT	-	16	-	16
	VE7SL	HARTLEY	BC	11	21	3	35
	VE7BDQ	COLPITTS	BC	6	4	1	11

enjoy reading the results and seeing how we all did.

I looked through nearly all the logs and recorded all the stations worked in order to figure out there were 67 stations operating in the event. All 67 call signs are in the "List of all '29 Stations Participating" so you can see who was and wasn't there this year. I saw several new stations and new states in the event which was exciting! I also missed seeing several old friends who had always been there.

I received a log from long time participant W2VDX but was surprised to learn that Bob had passed away and his son Ted now has the call sign. Ted said that he was operating the '29 QSO Party this year in memory of his dad.

Signals seem to be getting more stable as each year passes but I was still treated to some wonderfully wild 1929 signals including my favorite 'wind modulated' signals, the 'whoopers', the 'tweeters', the 'howlers', the 'chirpers', and of course those crazy guys running raw AC on the plates! I love 'em!

For a special treat, Bruce Kelley's call W2ICE was heard in the 1929 QSO Party for the first time since Bruce's passing. Scott WA9WFA (your '29 Manager) activated Bruce's W2ICE call sign with the permission of the AWA for a special event station and ran with both weekends as W2ICE/0. W2ICE/0 managed to work 40 stations on 40m, 80m, and 160m, in spite of poor conditions.

A special event QSL card will be issued to those stations that made contact with W2ICE. Be sure to send your QSL card of the contact and SASE to Ed Gable at the AWA Headquarters to receive the W2ICE QSL card! My plan is to have W2ICE operate from a different location each year and pass the fun around North America.

Another notable event was working 12 year old Joe Weber KC9WYV in the '29 QSO Party. Joe is from Superior, Wisconsin and was operating the entire first weekend at the 1929 station of his mentor Harold KB0ROB. Harold graciously let Joe slide into the main operating position and work the first weekend. Joe's CW skill was solid and pleasant to listen to. It was fun listening to him work '29 stations like a young old pro.

I had a chance to meet Joe afterwards and talk with him. He is your typical 12 year old who is a ham and happens to like 1929 transmitters. His goal this year is to operate the '29 QSO Party from his own home with his own transmitter. Kudos to Harold KB0ROB for mentoring this young fellow and helping him get into the event. If you have a friend who might be interested, contact him and invite him into the 1929 QSO Party.

The first 1929 QSO Party was held in 1983. Nineteen stations participated in that first event and 31 years later the 1929 QSO Party is still having fun with 67 stations. The 1929 QSO Party was started by Bruce Kelley W2ICE (SK), Linc Cundall W2LC (SK), and George Batterson W2GB (SK). Bruce Kelley was the first '29 Manager, followed by John Rollins W1FPZ (SK), and now me for the past 11 years.

Results of Linc Cundall Contest January 2015

By Mike Murphy, WU2D

The contest was held on Wed., Jan. 14 and on Sat., Jan. 17 for two 24 hour periods. The bands used were 160, 80, and 40 Meters. The contest is designed to favor those using low power and equipment constructed before 1950. But, all are welcome, AWA members and visitors both. A plaque is awarded to the top scorer at the Convention in August. The participants and their scores follow:

CALL	Name	QTH	Points
AA9DH	Bob	IL	180
W3FFJ	Chuck	DE	168
W1ZB	Jerry	MA	99
NA2X	Bob	NY	81
WU2D	Mike	NH	72
K9HF	Patrick	OH	57
K1TG	Roger	CT	54
WT2W	Jim	NY	48
N9TT	William	IN	45
NV1X	Bob	VT	30
KB0ROB	Harold	MN	16
N2BE	John	NJ	12

Results of the AM QSO PARTY
February 2015
By Janis Carson, AB2RA

This year, there was an effort to provide opportunities to contact W2AN on all of the bands in the QSO party. A schedule for operation on 160 Meters at night as well as daytime operation on 20 Meters was created for participating W2AN operators. These were 10 points for the first contact with a flagship station.

Thanks to the following stations for serving as W2AN flagship stations during their shifts on various bands:

W1ZB (20 Meters):	12 QSOs
W3GMS (75 Meters):	108 QSOs
AB2RA (40 Meters morning):	48 QSOs
WA2MER (Slugged it out with the foreign BC on 40 Meters on Sunday afternoon with no QSOs)	
NE1S (160 Meters evening):	7 QSOs

In addition, W1HRX from the James Millen Society (N9OO) was on the air for another 10 points for the lucky operators that heard him.

A new feature was the scoring of 20 Meter contacts at 5 points regardless of power level or age of equipment. This was intended to encourage wider use of the 20 Meter band. We hope this catches on while the sunspots are still good enough to take advantage of it. Judging from the number of Midwest stations, this may have been productive.

Here are the scores for the 6 participants that sent in logs for the 2015 AM QSO Party. We would like to see more logs next year to see who is there and to give credit to the proper winners.

Call Sign	Score
NE1S	42
W1GIG	37
KC9WW	33
AA9DX	17
WW3QB	11
K1MPC	7

The 160 Meter operations this year were better than last year, and could have been even better if people that checked during the evening sent us logs. The report from NE1S is at the bottom of the page.

W2AN (NE1S) used a Homebrew hybrid (solid-state with 833A modulator tube and 7527A finals) PDM XMTR, SX-28 RCVR, and 160M dipole at ~60.

Comments from Jim, WA2MER on the 40 Meter operations: I certainly enjoyed my short stint as W2AN, but I should have chosen my band and time slot more carefully. Forty meters in the afternoon was not the wisest choice because of the broadcasters so my shift was a bust. Next time I'll choose wisely!

As you can see, there was a wide variety of equipment used. AB2RA used a Johnson Valiant and HQ180 for 40 Meters and a K7DYY solid-state Class D AM rig for 160 and 75 meters. Thanks to all for your participation, hope you had as much fun as we did.

73, Janis, AB2RA

Call	Name	QTH	XMTR	RCVR	ANT
K2AEP	Pete	VT	DX-100	—	—
W1ZB	Jerry	MA	Globe King 400	SX-11	Inverted Vee
W1TAV	Steve	MA	Valiant II	75A4	—
AB2RA	Janis	NY	Class D XMTR	HQ-180	Full-wave horizontal loop
WA1HLR	Tim	ME	Viking 1.5	SX-62	160M dipole
WA1IWQ	Joe	MA	Hbrew XMTR	—	—
W1VD	Jay	CT	Hbrew Class D w/PDM	Persius (sp?) SDR	160M dipole

(continued on page 26)

Books and Literature

ERIC WENAAS, P.O. BOX 676028, 14813 RANCHO VALENCIA VISTA, RANCHO SANTA FE, CA 92067, E-MAIL: ERIC@CHEZWENAAS.COM

Books to be reviewed in this column should be sent directly to Eric Wenaas at the address above. After review, all such books become a permanent part of The AWA Library, which is available to members for browsing and research.

The Early Zenith Radios: The Battery Powered Table Sets 1922-1927 *by Gilbert M. Hedge with Durell M. Roth. Published 2014 by Schiffer Publishing, Ltd. 256 pages; 11" × 8½"; 433 color photos and 219 diagrams. Hardcover $45.00.*

Author Gilbert Hedge with Durell Roth introduce something of a new subgenre in their recent book on Zenith radios of the mid-1920s. As the authors correctly point out, "Many books have been written about the major and minor manufacturers of radios, the development of radio, and the pioneers who made it work." They hasten to claim that something is still missing, namely specific information about the radios themselves.

They go on to state that *Early Zenith Radios* is a unique book in terms of its extensive coverage of the radios selected and the in-depth photographic and textual information presented for each radio. Indeed, the depth of treatment is obvious from the fact that 162 pages are devoted to a total of only eleven different models, for an average of almost 15 pages per model.

The book is divided into three sections, but the first section is dominant with all the wonderful detail on the eleven Zenith models. One chapter in the first section is devoted to each radio, and the introductory page for each chapter has a beautiful high-quality photograph accompanied by general information on the radio.

Included are comments on unique design features, overall appearance, controls, relationship with other Zenith radios, variants, etc. There is a list of general specifications including model number, year manufactured, location of manufacture, serial number of the set pictured, price, tube types and circuit type. There is also a short paragraph describing the restorations performed on each radio.

The write-ups that follow are divided into two parts, a physical description and a functional description. A quick reference guide to the write-up for both the physical and functional descriptions is also provided on the introductory page to help the reader locate specific information that follows.

The physical and functional descriptions are evocative of an instruction manual that might have been provided with the radio combined with radio service notes in the detail that might be found in a Sams Photo-Fact™ Folder of the 1950s.

There is an incredible amount of detail in each chapter consisting mainly of photographs, diagrams, chassis layouts, detailed line drawings and schematics, all which are accompanied by a small amount of text in the form of short paragraphs akin to figure captions. The figures and photographs are annotated with text boxes using arrows from the boxes pointing to features of interest.

All the material is original and in great detail with high-resolution images. There are virtually no stock photographs, drawings or schematics copied from existing documents. The authors obviously created all of the material, and it is obvious that they have an excellent grasp of the physical, electrical, and operational characteristics of every set in the book.

Each chapter begins with a single page entitled "Physical Description Quick Reference Guide," which consists of a line drawing of both an exterior and interior view annotated by text boxes with arrows pointing out the topics covered and page number on which the topics may be found. The physical description includes an average of twenty

photographs of each radio covering both the exterior and interior of the set in exquisite detail. There are photographs of the front and rear of the cabinet with close-ups of features such as connector strips, controls, nameplate information engraved into the front panel, location of the mounting screws (accompanied by instructions for removing the chassis from the cabinet), and identification labels on the interior of the cabinet. The majority of the photographs cover the interior of the set with views of the more relevant or unusual components such as controls, switches, coils, phone jacks, rheostats, and capacitors.

The authors have also placed reproduction batteries in their appropriate position—a very nice touch not often seen. Most of the interior photographs are annotated with dialog boxes and arrows leading to the components of interest.

The functional description includes the basic operations of the each radio with reference to schematic diagrams, installation instructions with reference to connection diagrams for external equipment such as batteries and speakers, and operating instructions with reference to line drawings explaining the operating controls.

There are multiple schematic diagrams for each set, which, on the face of it, appear to be the same. A closer look reveals that each diagram is color-coded with green lines for wires carrying A+ and B- voltages, blue lines for C- voltages, and black lines for A- and C+ voltages. Each diagram is different depending on the position of switches and/or whether phone plugs are inserted into switched jacks. The switched jacks are actually drawn in sufficient detail that the opening and closing of the contacts can actually be traced when plugs are inserted or removed.

Section II consists of three chapters covering material that is not specific to any particular model. The topics appearing here are similar to those found in many books on antique radios—notes of general interest, success and failures of the company's radio designs, and promotional material including ads, brochures, and photographs from journals.

Section III, entitled "Zenith Radio Restoration Guide and Tips," is particularly worthy of further comment. It is particularly apropos because the authors did extensive restorations on a number of the sets before photographing them for the book. The usual five steps of any restoration project are outlined first: examining the radio and scoping the project, restoring damaged or defective components, restoring the chassis and cabinet, testing, and documenting the restoration.

The component restoration portion is the largest and most interesting because many of the components used in early Zenith radios were made of pot metal, and were subject to deterioration. Such components were replaced with parts made from aluminum. The component restorations required for each radio were identified on the first page of each chapter describing the radio, and the methodology for the actual restorations is covered in Section III.

Component restorations specific to the Zenith radios in the book include pot metal parts such as pointer dials and pulleys, battery brackets, multi-plugs and power cables, papier mâché speaker construction or repair, reproduction battery construction, variable capacitor repair and reassembly, and repair of RF and audio transformers. Templates are provided for most or all of the pointers used in the radios described in this book, and line drawings and dimensions are provided for pulley detail.

This is an excellent book that raises the bar considerably in terms of the quantity of information provided for each radio and the quality of the drawings, schematics and photographs. I believe anyone owning one of these radio would surely want this book, and to that end the eleven Zenith radios addressed in the book are identified as follows: 1-R, 2-M, 3-M, 3-R (Early version), 4-R (Early version), Super-Portable, 3-R (Late Version), 4-R (Late Version), VII, 11, and 12.

This book should also be of interest to a much wider audience, not only to supplement books on Zenith already in the possession of readers, but also, if for no other reason, to study this new subgenre focusing on extensive and exquisite detail.

(continued, next page)

Also Noted:

An Oscillator Reader II: Article from *The Pittsburgh Oscillator* 1996 to 2010

Ted Tepo, Editor with David W. Kraeuter. Published 2014 by Lulu. 102 pages; 6" × 9"; Paperback $8.29

This second volume of *An Oscillator Reader*, like the first, is an anthology consisting of articles taken from issues of *The Pittsburgh Oscillator,* except that this collection is taken from issues published from the period from 1996 to 2010 versus the earlier period from 1987 to 1995.

Like the first volume, this one contains articles with a potpourri of topics from activities of members of the Pittsburgh Antique Radio Society, to stories of interesting radios manufactured in various geographic regions including the Midwest, Los Angeles and elsewhere.

There are also stories of restoration and radio repair and stories from the era of early television. The last one is a tale of horrors resulting from a radio having been purchased at a long distance and shipped under the most unusual of circumstances.

Last but not least, the editors' keen sense of humor shines through once again with a before-and-after view of a resistor almost in contact with a line cord on page viii, and an image of what happens to the last page when the hapless resistor makes contact with the line cord. The book is available from Lulu.com.

MUSEUM, *continued from page 15*

that an item be accessed or placed in the permanent collection. The accessed item is given a unique "Accession Number" and moved to "accessed" status in the *PastPerfect* database.

Once an artifact is formally accessed by action of the Accession Committee, rules of the State of New York require the Museum to protect the ownership of the item. The AWA deaccessioning rules conform to the Rules of the Board of Regents as amended effective June 8, 2011. In short, the Museum may deaccess an item for only one or more of the 10 mandated reasons. Moneys received from deaccessioning of any property from the collection will be placed in a restricted fund to be used only for the acquisition, preservation, protection or care of collections. In no event shall proceeds be used for any other purpose.

Using the *Justification for Deaccessioning* form, the Curator will recommend to the Accessioning Committee that an object be deaccessioned. The Accessioning Committee is authorized to approve recommendations up to $1,500. Values greater than $1,500 also need the approval of the Museum Director or a Deputy Director. Upon approval, the object will be disposed of per the deaccessioning procedure.

AMATEUR RADIO, *cont. from page 23*

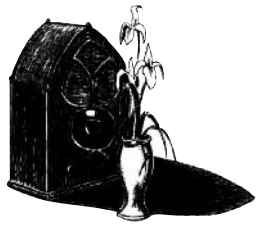
Results of the John Rollins Memorial DX Contest March 2015

By Jerry Reine, W1ZB

This year's John Rollins Memorial DX Contest participation was down from last year, with weather, propagation and contest announcement being factors. Several contest logs were submitted by April 4 and the first place winner of this year's event is N2BE John Bogath of Sandyton, NJ with a top score of 54 points. In addition, John worked a DX station from Jordan during the event. John was running a 1947 Hallicrafters HT-18 transmitter and a 1942 Howard BC-779-A receiver. In second place is KB0ROB Harold Borchers of Bemidji, MN with a score of 9 points. Other stations working in the event included WB9WHG, W1GIG, WB8FWJ, N3FCS and W1ZB.

Many participants had been good friends of John Rollins and were glad to operate in this event. Thanks to all that participated, hope to hear you next year. Please, if you participate, send in your log.

Recent Radio, TV and Entertainer Obituaries



COMPILED BY **CHARLES S. GRIFFEN, W1GYR**
400 SEABURY DR., APT. 4153, BLOOMFIELD, CT 06002-2660

Note: When known, the date of death is indicated in parenthesis.

STAN CHAMBERS, 91, (2-13-15) broadcast journalist. Chambers joined KTLA (TV) in Los Angeles on December 1, 1947 and continued there until his retirement on his 87th birthday, August 11, 2010. He worked on the station's first daily newscast in 1962 and during his career reported on 22,000 stories, ranging from the 1965 Watts riots, the assassination of Senator Robert F. Kennedy and the Rodney King beating. KTLA News Director Jason Ball said, "He will be remembered as a pioneer in the industry, and a pillar of the KTLA family." Chambers had been discharged from the U.S. Navy and was enrolled as a college student working on the campus magazine when he heard about the station. He invited the station to do a program about the magazine and was soon asked to join KTLA. Chambers has a star on the Hollywood Walk of Fame and a building on the KTLA lot named after him.

RAY DAVIS, 81, (12-3-14) radio personality. Davis was the host of *Bluegrass Country,* a musical show broadcast every weekday on WAMU (FM) in Washington, D.C. from 1985 until 2001. The program continued to be heard overnight, online and over another outlet affiliated with WAMU until his retirement in 2013. He is credited with making the Mid-Atlantic a leading center of traditional Appalachian folk music. Davis began his radio career when he was 15 years old working as an announcer at WDOV (AM) in Dover, DE. He later worked in Miami and Nashville as a sportscaster but music was always his primary interest. Davis hosted a bluegrass program for more than 35 years from WBMD (AM) in Baltimore where his guests included many entertainers including Patsy Cline, Ernest Tubb, Lester Flatt and Earl Scruggs. In addition, Davis was involved with bluegrass events nationwide as a promoter of concerts and festivals, frequently as an emcee.

DONNA DOUGLAS, 82, (1-1-15) actress. Douglas gained fame playing the buxom tomboy Elly May Clampett on *The Beverly Hillbillies* (CBS 1962-1971). She was chosen from more than 500 other actresses because she actually grew up (in Pride, LA) as a poor Southern tomboy. Born Doris Smith, she moved to New York City to pursue a career in show business. Hal B. Wallis saw her on CBS's *The Ed Sullivan Show* and cast her in a film drama *Career* in 1959 starring Anthony Franciosa, Dean Martin and Shirley MacLaine. Douglas later appeared in *Li'l Abner* (1959) and *Lover Come Back* (1961). Some of Douglas' other television credits include *Bachelor Father* (1959), *The Twilight Zone* (1961), *Checkmate* (1961), *Pete and Gladys* (1961), and *Night Gallery* (1972). Following her acting career, she became a real estate agent, a Gospel singer and inspirational speaker, and authored books for children and adults.

ANITA EKBERG, 83, (1-11-15) actress. Ekberg is best known for her role Sylvia Rank in the Federico Fellini film *La Dolce Vita* (1960). Some of her other film credits: *The Dam on the Yellow River* (1960), *Boccaccio 70* (1970) featuring Sophia Loren and Romy Schneider, and *4 for Texas* (1965) co-starring Ursula Andress, Frank Sinatra and Dean Martin. Ekberg made two more films with Fellini—*The Clowns* (1972) and *Intervista* (1987). Kerstin Anita Marianne Ekberg was born in Sweden but in 1964 became a permanent resident of Italy. In 1950 she won the Miss Sweden contest and went on to complete for the Miss Universe 1951 title. Although Ekberg didn't win she did receive a contract with Universal Studios. There she appeared in

Abbott and Costello Go to Mars and *The Golden Blade*, both in 1953. Ekberg guest-starred in the short-lived television series *Private Secretary* (CBS 1953) and *Casablanca* (NBC 1955).

JOE FRANKLIN, 88, (1-24-15) television personality. Franklyn was the host of *The Joe Franklyn Show* seen on WJZ (TV) (later WABC) in New York City from the 1950s until the 1990s. By 1993 Franklyn said he had hosted more than 300,000 guests during his 40 years on the air. A sampling of his guests included Woody Allen, Dustin Hoffman, Barbara Streisand, Bill Cosby, Liza Minnelli and Richard Nixon. Born Joseph Fortgang, Franklyn had been a writer for *The Kate Smith Hour* (CBS) in the 1940s when he was hired by Martin Block to choose records for his *Make Believe Ballroom* program on WNEW (AM) in New York City. He worked at several other stations before beginning his *Memory Lane* program on WOR (TV) (later WWOR) in 1962 until the show was cancelled in 1993. Franklyn lent his name to a restaurant with *Joe Franklin's Comedy Club* in the back until they both closed. He continued to do a late night radio show on the Bloomberg Radio Network, almost to the end.

MARY HEALY, 96, (2-3-15) actress and singer. Healy and her husband, Peter Lind Hayes, performed on television variety shows and sitcoms during the 1950s and 1960s. In the 1960s they did a weekday morning show on WOR (AM) describing the trials and tribulations of suburban life in a community near New York City. Some of their television credits include *Inside U.S.A. with Chevrolet* (CBS 1949-1950), *The Stork Club* (CBS 1950), *Star of the Family* (CBS 1951-1952), *Masquerade Party* (ABC 1955-1956) and *Peter Loves Mary* (NBC 1960-1961). During 1962 Healy hosted *The Tonight Show* on NBC and they were frequent guest panelists on the CBS game show *What's My Line?* and vacation hosts on Arthur Godfrey's television programs. Healy won the Miss New Orleans beauty pageant in 1935 and later signed a contract with 20th Century Fox. Her first major film role was in *Second Fiddle* (1939) starring Tyrone Power and Sonja Henie. In 1958 the couple starred in the Broadway production of *Who Was That Lady I Saw You With?*

JAMES E. JOLLEY, 88, (2-14-15) broadcasting executive. Jolley served as Vice President and Treasurer of Multimedia Broadcasting Company, a division of Multimedia, Inc., which operated 15 AM, FM and TV stations in the southeast. In 1947 he began his career with Textile Broadcasting Company, parent firm of WMRC (AM-FM) in Greenville, SC. In 1953 Jolley became Treasurer of WFBC (AM-FM-TV). When Multimedia, Inc. was formed in 1968 he was named a Director, serving until 1993. Jolley was a charter member of the Institute for Broadcasting Financial Management and was a trustee and founding donor of the Jolley Foundation, established by his parents in 1947. He served his community on many boards including the United Way, the United Speech and Hearing Services and the Greenville Chapter of the American Red Cross. In 2014 Jolley was named to the Citadel School of Business Hall of Fame.

LOUIS JOURDAN, 93, (2-14-15) actor. The debonair and handsome Jourdan achieved stardom in the film *Gigi* (1958) opposite Leslie Caron and Maurice Chevalier. The musical won nine Oscars including best picture and best director. Jourdan teamed again with Chevalier in the musical *Can-Can* (1960). Some of his other film credit: *The V.I.P.s* (1963), *Made in Paris* (1966), *Swamp Thing* (1982), *Otopussy* (1983) and *Year of the Comet* (1992). Jourdan was born Louis Robert Gendre in Marseille and studied acting in Paris. He came to the attention of film director Marc Allegret who featured him in several films. Jourdan's career was interrupted by WWII with the German's occupation of France. He was placed in a forced labor camp, digging ditches and building roads. Jourdan came to the United States after WWII. On Broadway he starred in *The Immoralist* in 1954 and a year later *Tonight in Samarkand*. In 1985 Jourdan toured in a

stage version of *Gigi*.

GARY OWENS, 80, (2-12-15) actor and announcer. Owens achieved fame as the zany announcer on *Rowan & Martin's Laugh-In* show on NBC Television from 1968 until 1973. With one hand cupped over his ear he would announce, "From beautiful downtown Burbank" at the beginning of the show. Some of his other television appearances included *The Hudson Brothers Show* (CBS 1974), *The Gong Show* (Syndicated 1976-1977), *Games People Play* (NBC 1980-1981) and *Sheep in the Big City* (Cartoon Network 2000-2002). Born Gary B. Altman, he started his career as a news reporter at KORN (AM) in Mitchell, SD in 1952. Owens worked at a number of stations before moving to KROY (AM) in Sacramento in 1959. He joined KEWB (AM) in Oakland in 1961 and then in 1962 replaced Johnny Grant on KMPC (AM) for the next two decades. Owens was the announcer on *The Wonderful World of Disney* and appeared in numerous television specials with stars including Bob Hope and Lucille Ball. He was inducted into the Radio Hall of Fame in 1994.

LIZABETH SCOTT, 92, (1-31-15) actress. Scott possessed a deep, throaty voice and sensuous good looks, helping her to reign as the queen of Hollywood's darkly anti-romantic productions of the 1940s and 1950s. She appeared in nearly two dozen films as the female lead in most of them. Scott appeared opposite Humphrey Bogart, Burt Lancaster, Robert Mitchum and Kirk Douglas, and shared billing with Mary Astor, Jane Greer and Barbara Stanwyck. She starred with Stanwyck in *The Strange Love of Martha Ivers* (1946) and with Bogart in *Dead Reckoning* (1947). Other film credits include*: I Walk Alone* (1948), *Pitfall* (1948), *Too Late for Tears* (1949) and *Paid in Full* (1950). Scott's last picture was *Pulp* with Michael Caine and Mickey Rooney in 1957. Scott performed on *The Lux Radio Theatre* (CBS 1946) and made television appearances on *Studio 57*, *The 20th Century Fox Hour* and *The Third Man*. Born Emma Matzo, she quit college in order to study acting at the Alvienne School of Drama in New York City.

HAROLD SEGAL, 96, (11-30-14) executive. Segal owned WNEB (AM) in Worchester, MA from 1977 until 1986. He also owned WKBK and WXOD in New Hampshire, before selling the properties between 1986 and 1990. Segal began his career in 1949 as a sales representative at WTAO (AM) in Cambridge, MA. To get the job he offered to work for free to gain the necessary experience. He was hired by WORL (AM) which helped launch his career. In 1959 Segal was named General Manager of WHEB (FM) in Portsmouth, NH. He helped other stations to prosper before starting his own agency that linked radio stations with advertising agencies. Segal became the first off-air inductee to the Massachusetts Broadcasters Hall of Fame in 2007. During WWII he served in the U.S. Army in North Africa and Italy.

RICHARD SHER, 66, (2-9-15) radio host, writer and producer. Sher was the creator, Executive Producer, and host of National Public Radio's *Says You!*—"a radio game show of bluff and bluster, words and whimsy." It was heard in the Boston area on WGBH (FM) and WCAI (FM) beginning in the early 1996 and on a coast-to-coast network of over 100 stations. The program was taped before devoted live audiences and featured six regular panelists. Prior to *Says You!* Sher worked as a freelance producer and writer for Boston television's WBZ's *Evening Magazine* and WCVB's *Chronicle*. He was also the founder and President of Pipit & Finch, a marketing and media development company. *Says You!* will continue to be broadcast because there is a reservoir of nearly 500 taped shows. Sher became a certified optician, working at Massachusetts Eye and Ear Infirmary while earning his graduate degree from Boston University.

BOB SIMON, 73, (2-1-15) journalist. Simon was employed by CBS News from 1967 until his death. He was in his 19th season with *60 Minutes* as a correspondent and won many honors including 27 Emmy Awards and four Peabody Awards. Simon was based in Saigon and London from 1971

to 1977 and was assigned to CBS's Tel Aviv Bureau from 1977 to 1981. From there he was moved to Washington, DC where he was the network's State Department correspondent before returning to New York City as a national correspondent. In 1987 Simon returned to Tel Aviv as the network's Chief Middle East Correspondent. Before working for CBS, he was employed as a Foreign Service officer from 1964 until 1967. Jeff Fager, Executive Producer of *60 Minutes* said, "It's a terrible loss for all of us at CBS News." Simon received a Peabody Award in 2000 for "a body of work by an outstanding international journalist on a diverse set of critical global issues" and an Emmy Award for Lifetime Achievement in 2003.

ROD TAYLOR, 84, (1-7-15) actor. Taylor's performance in Alfred Hitchcock's film *The Birds* (1963) helped him achieve stardom. Some of the actor's other fifty film credits include *Ask Any Girl* (1959), *The Time Machine* (1960), *Sunday in New York* (1963) opposite Jane Fonda, *The V.I.Ps* (1963), *Chuka* (1967), *Hotel* (1967) and *Dark of the Sun* (1968). Taylor, who was born in Australia, arrived in Hollywood in the mid-1950s and was hired by Metro-Goldwin-Mayer. When his career declined in the 1970s he returned to television, starring in the *Bearcats* (CBS 1971) and *The Oregon Trail* (NBC 1977). Taylor also had recurring roles on *Masquerade* (ABC 1983-1984), *Falcon Crest* (CBS 1988-1990), *Murder, She Wrote* (CBS 1995), and *Walker, Texas Ranger* (CBS 1996). In Australia he performed in radio dramas—*Blue Hills* and *Tarzan*—and had a featured role in the film *King of the Coral Sea* (1953) starring the popular Chips Rafferty.

CLARK TERRY, 94, (2-21-15) trumpeter and flugelhornist. Terry was a main stay in the Duke Ellington Orchestra and *Tonight Show* band (NBC 1960-1972) and a mentor to generations of jazz players. He was in constant demand as a band leader, studio musician and accompanist. Terry was associated with Duke Ellington from 1951 until 1959 when he left to join the NBC staff. He was one of the most recorded musicians in the history of jazz, with more than nine-hundred recordings. He was featured with the Duke Ellington Orchestra, Count Basie Orchestra, Dutch Metropole Orchestra, Woody Herman Orchestra, Herbie Mann Orchestra and many other large ensembles. Terry began his career with a St. Louis drum and bugle corps in 1935. He served in the All-Star Navy Band at Great Lakes in Chicago from 1942 to 1945. Terry received a Grammy Award for Lifetime Achievement in 2010.

TONY VERNA, 81, (1-18-15) instant replay inventor. Verna, a television director and producer, ran the first instant replay of the Army-Navy football game in Philadelphia for CBS Sports on December 7, 1963. It was one of the most important innovations in sports and broadcasting history, but Verna received no patent or payments for his invention. When the technology was used again in the Cotton Bowl on January 1, 1964, sportscaster Pat Summerall gave it the name that would endure: instant replay. Verna developed a method to cue the tape to pinpoint the play he wanted to immediately air again. His goal was to fill the gaps between plays during a football telecast. Verna's first job was in television in Philadelphia before joining CBS in 1981. There he directed or produced every kind of sporting event, including tennis, figure skating, hockey and basketball. Verna wrote the book, *Instant Replay: The Day That Changed Sports Forever* and in 1995 received the Lifetime Achievement Award for Sports from the Directors Guild of America.

BOB WILSON, 85, (1-15-15) sportscaster. Wilson was the voice of the Boston Bruins hockey team for nearly three decades. He began as the color man for the Bruins from 1964 until 1967 on WHDH (AM) and began calling the play-by-play for the team in 1972. Wilson was also the weekend sports anchor on WHDH (TV). At the end of the 1960s Wilson anchored sports for KMOX (TV) in St. Louis for two years before returning to Boston as the Bruins announcer for WBZ (AM). Over the

(continued on page 33)

THE VACUUM TUBE

EDITED BY **LUDWELL A. SIBLEY**, 102 MCDONOUGH RD., GOLD HILL, OR 97525-9626

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Thoughts on eBay Tube Marketing

There are a couple of notions (nowadays called "memes") that have taken hold in the world of tube commerce, specifically on tubes offered by amateur and semi-professional sellers on eBay.

Engraved Base

One of these is the idea of an "engraved base." Tubes are proudly offered with this distinctive feature. Trouble is, there is no such thing. Consider, for starters, the difficulty of engraving a cylindrical surface. With a suitable machine design, it could have perhaps been done, but ever-so-slowly. The problem would have been worse with complex logotypes like the Cunningham "C" symbol.

Tube bases were mass-produced goods, and it was far more feasible to zap out the identifications by heat-branding them. A stamping die, heated by electricity or a gas flame, burned its way into the Bakelite, leaving clean script that looked like engraving.

The photo shows the branding machine in the De Forest Radio Company plant in Passaic about 1931. It is loaded with five-pin bases for their 427 (= RCA 27) tube. The white object just above the vertical gas pipe is a die with the company's script logo with a gas flame playing on it from below. The machine rolls the bases across the flat die.

This process faded out in the mid-thirties in favor of stamping with inks in colors that contrasted with the black material of the base.

"Tests Nos"

Tubes are routinely offered with tube-tester readings said to indicate they are "new old stock." Apart from the wide variation in measurement from one type of tester to another, claims that newness can be gauged from a test of transconductance

Tube base branding machine in the De Forest Radio Company plant at Passaic, NJ about 1931. Courtesy Robert Lozier.

are meaningless. The limits that, RCA for one, applied to its new tubes show that wide swings from one tube to tube another were expected and acceptable. Tables of transconductance limits have appeared in print [1]. In general, each tube had a "bogie" value of g_m that usually, but not always, equaled the nominal value given in a tube manual. Taking the 6L6 as an example, the nominal figure is 6 mS when measured at 250 volts and 72 milliamps. The nominal figure depends on operating conditions: it's 5.3 mS at 300 V and 48 mA, and falls to 5.2 mS at 350 V and 54 mA. RCA's internal standards (from the Standardizing Notices in the Dowd-RCA archive in the AWA Museum) for the 6L6 and 6L6GC, were:

Customer Minimum	5.3 mS
Factory Minimum	5.4 mS
Bogie	6.0 mS
Factory Maximum	6.6 mS
Customer Maximum	6.7 mS

The "factory" figures are obviously the extreme values acceptable for quality-control purposes. The "customer" numbers presumably add some margin for tubes knocked-about in shipment plus variations caused by use of testers other than the ones at the plant.

The natural tendency was for the g_m of tubes to undergo "slump on life," that is, to degrade slowly over a few thousand hours of use. However, an unusual opposite case occurred in the case of the 6AC7 pentode, where "the transconductance may rise as the tube nears the end of its useful life" [2].

In any event, declaring a tube "NOS" on the basis of a seller's measurement is not, um, supportable.

"Matched Pair"

Another case in the Wild West of sales on the Web is the "matched pair." In the old days, some vendors offered pairs of output tubes, often boxed together, and matched to some unspecified degree. RCA offered only its "6550V1" pair, which was "matched for plate current." The secondary venders like Amperex, CBS, or Tung-Sol did also, on types like the EL34/6CA7. Today, Web sellers claim "matchedness" based on personal criteria. The closeness may be simply that the tubes are of the same brand, or carry the same date code, or read similarly on the tester. One pair of Western Electric 300Bs came up a couple of years ago, made four years apart and differing in g_m by 16%, but "matched"!

In recent years the Penta Laboratories branding operation has come out with a helpfully clear definition regarding its audio tubes, claiming that their matched pairs, after 48 hours of aging, measure within 5% of each other on plate current, screen current, and g_m. This clearly states the degree of match.

Despite this ray of clarity, aficionadi of output tubes are not enthusiastic about matching via an ordinary tube tester, on grounds that the operating point of the tubes in an amplifier usually differs from that in the tester, and that a reported match may not mean much. The old *caveat emptor* rule still applies.

New Book Appears

There is a fresh book on the market: *Historische Elektronen-röhren für Telephonie und Radio (Historic Electron Tubes for Telephony and Radio*), the latest work on the history of information technology by Prof. Franz Pichler, who has often appeared at the Rochester Conference and who has contributed three recent articles to the *AWA Review*. This is a paperback of 152 pages in 6¾" × 9½" size. The publisher is Trauner Verlag, the publication arm of Johannes Kepler University of Linz, Austria.

The scope is classic German telephone-repeater tubes (poströhren) and Austrian commercial receiving types, from the beginning (the Lieben-Reiss-Straus Relay) up through the '30s. The German and Austrian makers and brands are thoroughly repre-

Franz Pichler's new book. See text.

sented: Siemens, Kremenezky (Orion, Sator), Schrack (Triotron), Ganz (Ostar), Tungsram, and the rest. The author has benefitted from outreach to major European tube collectors. The book presents color photos from a massive collection, showing 203 types of nine brands. It also reproduces catalog pages: 32 from Siemens, 38 from smaller makers. Besides descriptions of the tubes themselves, histories of the makers are given.

The book may be ordered via www.trauner.at. The price is €14.00.

REFERENCES

1. RCA Parameter Limits for New Tubes, *Tube Collector*, Dec. 2001, p. 6.
2. G. B. Woodman, "Improved Vacuum Tube Reliability Through Maintenance," *Western Union Technical Review*, Oct. 1957.

OBITS, *continued from page 30*

years he moved to WITS, WPLM and WEEI as each station hosted the Bruins' broadcasts. Born Robert Henry Castellone, he graduated from the Leland Powers School of Radio, Television and Theatre in 1952 and worked at stations in Crowley and Lafayette, LA. Wilson returned to Boston in 1957 as a top-40 disc jockey for WCOP (AM). He was awarded the Foster Hewitt Memorial Award for Hockey Excellence in 1987. In retirement Wilson moved to Gilford, NH and hosted a nighttime oldies show for WLKZ (FM) in nearby Laconia.

Information for this column was obtained from *The Boston Globe*, *The Complete Directory of Prime Time Network and Cable TV Shows 1946-Present* (9th edition), *The Hartford Courant*, *On the Air: The Encyclopedia of Old-Time Radio, The Washington Post*,
www.bluegrasstoday.com,
www.cbsnews.com,
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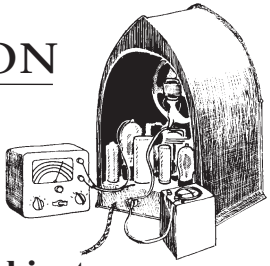
www.nytimes.com,
www.saysyou.net, and
www.wikipedia.org.

The writer wishes to express his appreciation to Gene Garrison, K4KSU Ted Hannah, K3CL and Dr. A. David Wunsch for additional source material.

EQUIPMENT RESTORATION

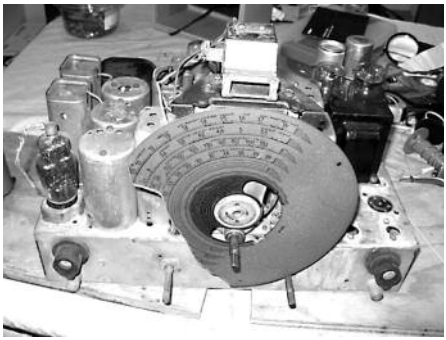


BY **DAN MERZ**, 1268 WHITE BLUFFS ST., RICHLAND, WA 99352
mdmradio@frontier.com

Submit restoration tips in Word, WordPerfect or plain text files with any illustrations in separate jpeg , tif or bmp files (not embedded in document).

Merging a Philco Chassis and a Zenith Cabinet

Occasionally you might come across radio components that you have no particular use for, but seem to deserve a lasting home. Often these are passed on to another collector through swap meets, hamfests or friendships for use in restoring a set. About a year ago a friend and I went to an auction that contained the last remnants of a collection of many radios that had belonged to a deceased mutual friend.



The Philco chassis and Zenith cabinet as found.

This auction included mostly parts, cabinets and chassis that were sold in mixed lots. In order to get a desired item, the buyer had to take a number of others that he might have no particular use for. But the prices were low so such transactions were still worthwhile.

Among the items that my friend came away with in a lot he bought were a 11-tube chassis from a 1935 Philco 665 console and a 1936 Zenith tombstone 6V-27 battery radio with a very damaged chassis. It had no knobs or speaker, but the cabinet that was in pretty good condition. My friend wanted to shed these two items immediately. But I thought I might marry the Philco chassis and Zenith cabinet. With a few measurements, I determined that the chassis would fit the cabinet so I agreed to take them.

I decided to replace the Zenith airplane dial with a Philco-style panel and try to retain the Philco dial layout. Unfortunately the original Philco circular plastic dial had been badly damaged and about half of the tuning scale range was broken off and missing. I found an online source for a dial replacement, but since I didn't have the original dial escutcheon, I was hesitant to purchase a dial replacement for $30.00.

I kept looking on eBay for a dial escutcheon and finally bought one mounted on small panel, most likely from a console radio. Luckily, the panel fit the shafts coming out of my 665 chassis, though the escutcheon was a little smaller than the original. With this in hand, I used a saw and

(continued on page 41)

AWA 2015 WORLD CONVENTION

RIT INN AND CONFERENCE CENTER, ROCHESTER, NY • AUGUST 11-15, 2015

THEME: INTERNATIONAL SHORTWAVE BROADCASTING AND THE RECEIVERS THAT LISTENED

Call RIT directly at 585-359-1800 for room reservations.

Welcome to the 2015 AWA World Convention! As the Chairman, I can assure you that all of us have worked very hard to make sure that you find this year's event to be the best ever!

Last year, as you know, we went to a new reservation system which met with great success and will be retained this year. By utilizing a commercial reservation system we have been able to provide a much better service to all of our guests. We are also retaining the "Flat Rate Flea Market." Make a single payment and take as many Flea Market spaces as you wish!

New for 2015 is a switch from the menu-based Tuesday evening dinner to a buffet. Our guests were asking for a less formal and less expensive meal and we listened. I think that you will be very pleasantly surprised with the Tuesday Dinner. Of course we will still offer our free Pizza Social, with entertainment, on Wednesday evening.

Those of you staying at the RIT Inn will enjoy the continued improvement of the facilities. The hotel does a great job of hosting our radio friends. With so many more evening activities in our schedule, it just makes sense not to have to drive elsewhere at the end of a very full convention day.

Contest
GEOFFREY BOURNE
CHRIS BACON

Advertising
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Hotel Relations
ROBERT HOBDAY

Registration Database
RICHARD NEIDICH

Auction
BRUCE ROLOSON

Registration Database
DAN AND SUE
WATERSTRAAT

Chairman
ROY WILDERMUTH

Since I became Chairman of the Convention I have worked very hard to maintain the best of the prior year's events while bringing in more social activities and a diversity of programs. I don't do this by myself. I have excellent committees that have continued to raise the bar. And there are many others, too numerous to mention, who helped in ways big and small.

If you are coming this year I will look forward to seeing you. But if you are on the fence about it, how about deciding to give us a try! As always, I am very glad to hear from you regarding anything to do with the Convention. Feel free to call me at home in Rochester: 585-899-6703 or by email at w2it@rochester.rr.com. For later-breaking information check the AWA website at www.antiquewireless.org. See you in August!

Roy Wildermuth, W2IT
2015 AWA World Convention Chairperson

THE CONVENTION THEME

BY GEOFF BOURNE AND CHRIS BACON

This year's theme centers on international short-wave radio—specifically the Voice of America Broadcasts and the Receivers That Listened. It is a celebration of the place in world history played by international broadcasting to express the goodwill of the American people, provide news and information, and counter propaganda.

Although intentional and unintentional broadcasting across national boundaries occurred almost from the start, broadcasting from one country to others over great distances had to wait until practical shortwave receivers and transmitters became widely available in the early 1930s.

In the US, international broadcasting was originally done by the private sector.

The largest networks were those operated by NBC (the "White" or International Network), CBS (the Latin American International Network), and the Crosley Corporation. While the government did not control or censor the programming, the FCC made it clear that international broadcast station license holders were expected to portray America in a positive light and uphold the State Department's Good Neighbor Policy.

In 1940, the State Department launched the Office of the Coordinator of Inter-American Affairs to coordinate the shortwave broadcasts to Latin America. Countering Nazi propaganda there was seen as a vital need. Initially, the agency simply sent commentary and news releases to the stations. Direct broadcasting began after the U.S. entry into WWII. It was Franklin Delano Roosevelt's speech writer and advisor Robert Sherwood who coined the name "Voice of America" for the new broadcast service.

The Office of War Information took charge of VOA operations in mid 1942 and greatly expanded the number of broadcasts and languages. Broadcasts were aimed at northern and southern Europe, Asia, Africa, and elsewhere. In late 1945, VOA was returned to the Department of State.

In 1947, VOA began broadcasting to the Soviet Union to counter what was seen as egregious propaganda directed against American leaders and policies. VOA was transferred again to the U.S. Information Agency when it was established, in 1953, to transmit worldwide, including to the Soviet Union and Peoples Republic of China. VOA's focus and operations have shifted numerous times to keep up with the world situation and continue to this day with radio, internet, and cable and satellite TV.

In keeping with this year's convention theme, the grand opening of the Museum Phase 2 will include the unveiling of the new Voice of America Station exhibit and special theme categories in the Old Equipment Contest.

GETTING TO THE CONVENTION

The Conference Center is reached from Exit 46 of the New York State Thruway (I-90): take I-390 north to NY 253 west, to NY 15 south. For visitors arriving by air, the location is about seven miles from the airport. There is shuttle service 6 a.m.-11 p.m. Specify the RIT Conference Center—not the RIT college campus.

Directions to the new Museum Complex from the hotel: Turn right (south) on Rt. 15. At Avon (9.5 mi.), go left (east) on Rts. 5 & 20. At Bloomfield (16 mi.) pass the Holloway House restaurant and continue east on 5 & 20 approximately one mile. The Museum Complex will be on your right at the intersection of Route 444.

2015 AWA CONVENTION AGENDA

NOTE: Most presentations and seminars are held in the Seneca-Onondaga Rooms. Otherwise room is specified here, or check lobby signs. This listing is tentative and may change somewhat by convention time. Check www.antiquewireless.org from time to time for current information.

Tuesday, August 11, 2015

9:00 a.m. Registration Desk Opens

10 a.m.-5 p.m. AWA Museum Open

10 a.m. Phase 2 Opening Ceremony at AWA Museum

6:30 p.m. Welcome Buffet Kick Off Dinner at RIT Conference Center with talk on Hedy Lamarr by keynote speaker Karen Noske.

Wednesday, August 12, 2015

9:00 a.m. Registration Desk Opens

9:00 a.m. Book Fair Opens

9:30 a.m. Presentation by Mike Rink, W2HYP, *History of a Large Repeater.* Is there an obligation by the Repeater Operator to furnish certain services? Mike discusses the morals of being the operator of a large repeater and the history of the 145.11 machine in Rochester.

10:45 a.m. Presentation by Paul Jason, K2FX, *Contemporary Radio Update.* Trends in modern radio programing including examples of automation.

11:45 a.m. Lunch Break

1:15 p.m. Presentation by Dan Bedford, *From Galena to Zero Bias FETS: A Brief History of the Radio Receiver.*

2:30 p.m. *AWA Amateur Radio Report*
The annual report on what's going on with AWA and Amateur Radio.

3:45 p.m. Presentation by Jerry Begel, *A Brief History of Recording.* From metal spikes, paper holes and grooves to wires, rust, light and beyond. Why do we need electricity to amplify sound? Motivated by the author's research into Valdimar Poulsen, inventor of an 1899 telephone answering machine, and his efforts to make a reliable recording medium.

5-7:00 p.m. AWA Museum Open

7:00 p.m. Pizza and Dance Party
NOTE: While there is no charge for the party, you must be registered. If you arrive on Wednesday after registration closes and are not pre-registered you will not be admitted. Pre-registration is strongly suggested!

Thursday, August 13, 2015

6:00 a.m. Flea Market opens and remains open continuously.
NOTE: All flea-market space is first come first served. Please remember that items containing hazardous substances such as Mercury are not allowed. Non-radio-related items are subject to review. If you have any questions please contact us. Outside sales are strictly private transactions; neither the AWA nor RIT are parties to them. Sellers must be registered attendees and remain responsible for taxes and all legal aspects. Buyers need not be registered but those unregistered WILL NOT be admitted to any forums or the Auction. There will be no day passes or "Auction Only" tickets.

9:00 a.m. Registration Desk Opens

9:00 a.m. Book Fair Opens

9:00 a.m. Presentation by Mike Adams, *Radio in 1922; What the Boys and the Girls Knew.* What was radio like in 1922? Mike provides a humorous and informative look at the early days of an exciting medium.

10:15 a.m. Presentation by Eric Wenaas, *Oliver Lodge's Fanciful History of The Coherer.*

12:00 p.m. Lunch Break

12:15 p.m. Special Guest Luncheon. Sarah Ford Terrey will speak on *How Georgia O'Keeffe Changed My Life*

1:30 p.m. Presentation by Brian Harrison, *The Story and Great Mystery of Amelia Earhart.*

2:45 p.m. Presentation by Anders Widell, Lund, Sweden, *Horace Hurm, a Multi-Talented French Radio Pioneer 1880-1958.*

3:45 p.m. *Key and Telegraph Seminar* hosted by Tom Perera. *The Extraordinary Telegraph Collection donated to The AWA* (Steve Wolf); *Telegraph History* (Bill Burns); *The Inventions and innovative telegraph keys of Bernard* Breedlove (Tom Perera); *Semi-Automatic Telegraph Keys* (Gil Schlehman)

6:00 p.m. Buffet Dinner Social Hour

6:30 p.m. Buffet Dinner with The Collins Collector Association

8-11 p.m. Old Equipment Contest Check-In

8-10 p.m. Moonlight Restorations Seminar hosted by

Marc Ellis. *Radio Restoration Review and A Power Supply For The Atwater Kent* 33 (Dan Gervais); *Building a Gilbert Davey Two-Valve Set and Restoring a 1940s Bakelite Radio* (Dan Bedford); *Restoring a 1927 Colonial Model 28 AC Radio Journal* (Restoration Columnist Dan Merz – by proxy).

10:00 p.m. Movie: *The Imitation Game*. Note that Tom Perera will be giving a special talk on Friday morning relating to the real story behind this movie.

Friday, August 14, 2015

8:00 a.m. Old Equipment Contest Last-Minute Check-In

9:00 a.m. Old Equipment Contest Judging

9:00 a.m. Registration Desk Opens

9:00 a.m. Book Fair Opens

9:00 a.m. AWA Members Meeting

10:30 a.m. Presentation by Tom Perera, *The Real Story of the Movie The Imitation Game and the Enigma of Alan Turing*

12:00 p.m. Lunch Break and Contest Viewing

12:45 p.m. Presentation by John Dilks, *Pauline and Ed Raser, Wireless Pioneers*

2:00 p.m. Presentation by Bart Lee, To Be Announced

2-5:00 p.m. Main Auction Check-In

3:15 p.m. Pre-1912 Seminar, hosted by Felicia Kreuzer

5:00 p.m. End of Programs for the 2015 Convention

6:00 p.m. Banquet Social Hour

7:00 p.m. The 2015 AWA Convention Banquet followed by Contest Viewing

9-11 p.m. Auction Preview

11 p.m.-midnight Contest Pickup

Saturday, August 15, 2015

7-8:00 a.m. Equipment Auction Preview

8:00 a.m (until completed) Equipment Auction

NOTE: In order to participate in the 2015 Convention Equipment Auction you must have registered for the Convention. Registration closes at 12:00 noon, August 14, 2015. Your registration includes the cost of auction materials for the primary registrant. Additional auction cards are issued only upon payment of additional registration fees. The AWA recommends that you do not allow others to use your bidding number. A bid is a contract under New York law YOU ARE RESPONSIBLE FOR ANY CHARGES. There will be a $20.00 fee for failure to pay auction charges. No Auction Seller's Payouts until one hour after the end of the Auction.

AWA 2015 OLD EQUIPMENT CONTEST

The Contest Theme: International Short-Wave Broadcasting and the Receivers That Listened

By Geoffrey Bourne and Chris Bacon, Contest Coordinators

Over the past several years, the AWA Old Time Equipment Contest theme categories have reflected specific manufacturers like Heathkit and Hallicrafters, or specific themes such as FM and Communications. This year's theme is a bit of a departure as it is about a special kind of broadcaster and the programs it broadcasts.

— The Theme Categories —

1. **Voice Of America:**
   This is an open category; artifacts of VOA equipment and programming, documentation, and displays may be entered.

2. **Receivers from Behind The Lines**
   In many of the countries VOA broadcasts to, ownership of shortwave radios capable of tuning foreign broadcasts was controlled or prohibited. Yet huge numbers of people managed to build or acquire radios and listen in. This category is open to any foreign shortwave receiver that would have been available and used in the countries the U.S. was broadcasting to. Reproduction and homemade receivers are welcome as long as they are constructed with parts that would have been available in the countries represented.

3. **The Home Front**
VOA was specifically prevented from broadcasting to Americans until 2013 by the Smith-Mundt act of 1948. This was seen as necessary to prevent the government from propagandizing its own people. But Americans who wanted to hear the short-wave broadcasts were free to tune them in and a great many did, particularly during the height of the Cold War. This category is open to SWL (Short Wave Listening) receivers from 1940 to 1980 that would have been used by Americans to hear what their government was saying.

— The Standard Categories —

4. **Passive Receivers**
Any detecting device, not including vacuum tubes or solid state amplifying devices, whose purpose is to convert radio energy into intelligent signals.

5. **1920s Superhet Receivers**
Any receiver which employs the superheterodyne circuit and is from the 1920s can be entered here.

6. **1920s Tuned RF Receivers**
During the 20s the TRF set was one of the most widely produced types on the market. It was sold in kit form, factory assembled or built from scratch from plans in a magazine. This is where you would enter a Freshman Masterpiece or an AK 20 and so on.

7. **1920s Regenerative and Reflexed Receivers**
Many manufacturers employed different circuits to improve the receiving capabilities of their radios. The Regen and Reflex are among the many circuits that were used. Bring in a fine example of this type of radio.

8. **Cathedrals, Tombstones and Consoles 1930s and 1940s**
These are probably the most recognized styles of antique radio. Just about everyone remembers someone in their family having one. So bring in that Philco 90 or any other cathedral, tombstone or console radio. We will split the category if enough entries show up.

9. **Military Radio**
A. Pre-WWII (Early telegraph, Spark wireless, etc.)
B. WWII 1941-1945
C. Post WWII 1946-1960
D. Vietnam Era
E. Misc.

10. **Portable Radios**
Any battery-operated portable radio may be entered in this category. We may split the category into decades so a transistor set does not compete with a 1920s tube set. So bring in anything from an early portable radio from the twenties to a Zenith Transoceanic from the fifties or sixties.

11. **Speakers**
A. Horn
Any sound reproduction device can be entered here as long as it employs a or bell for sound amplification.
B. Cone
When radio sets obtained greater power output levels the magnetic speaker unit was designed with large surface areas for better sound reproduction. There are many fine examples of this type of speaker. i.e. Tower Adventurer, Western Electric, ...

12. **Test Equipment**
There were many makers of test gear. A short list would include Supreme, Superior, Hickok, Weston, Read-Rite, General Radio, Simpson, Rider, RCA, and too many others to list. So surprise us, bring in the unusual or the common.

13. **Tubes**
In this category you can display a single tube or a collection. There should be a common theme with the display, such as historical significance, technological breakthrough, etc. The display should tell a story.

14. **Television**
A. Mechanical
Bring in a scanning disk or a mirror screw set. It can be original or a modern replica.
B. Electronic
This is the category to enter any television set. Can be Black & White or Color. Kit or factory.

15. **International Radio**
A. Pre-1945
Bring in any radio or artifact produced before 1945 from any country outside the U.S.
B. Post-1945
Bring in any radio or artifact produced after 1945 from any country outside the U.S.

16. **Novelty Radio**
Bring in a nice lamp radio or any other radio made to look like something else.
A. Tube
B. Transistor

— The Amateur Radio Categories —

17. **Spark Transmitters and Artifacts**
Do not hesitate to enter a major piece of spark equipment if you think it is rare or historically significant.

18. **Vacuum Tube Transmitters and Receivers**
Some of the sets for this class are old, some not so old, most home-built, while the predominant entries have been amateur-constructed, commercial equipment is welcome. This year we are going to split the category in two.
A. Home Brew
B. Commercial

— The Craftsman Categories —

19. **Restoration of Appearance**
The purpose of this category is to display examples of rebuilding and refinishing the cabinets and containers that were used to house radio receivers. There is no requirement for a particular kind or size of set to be entered. A description of the work done will be considered an important part of the entry. The critical element is the appearance of the radio, including woodwork, escutcheons, dials, knobs and other visual details.

20. **Restoration of Operation**
This is the category for those craftsmen who artfully substitute modern components for old failures. The new electrolytic in the old can is an excellent example. Another is the transistorized tube. Perhaps the replacement of pot-metal parts by silver-gray-colored epoxy castings has been accomplished by one of us. If so, please bring in the set that incorporates that restoration. An entry should be accompanied by documentation showing the basis of the update that preserves the quality of the original.

21. **New or Rebuilt**
Previously we have encouraged entries that showed the conference attendees how substitutions and reconstructions would provide vital parts or pieces. We also encouraged craftsmen who had made an old function come alive again to bring their work for review. Do you remember the Federal receiver and the operating Marconi coherer detector that were entered several years ago? We want to continue that tradition, so bring in your retrospective designs and your reconstructions. There is no requirement for particular devices or circuits.

22. **Open Category**
Enter any item that does not fit into the listed categories.

— The Contest Awards —

Elle Craftsman
Given in memory of Bruce Elle to a builder of a high-quality radio receiver of an old or new type.

Matlack Transmitter
Given for excellence in constructing or restoring transmitting equipment.

Ralph O. Williams Display
Recognizes the informational value and quality of an exhibit in the contest at the AWA conference.

Thompson Best of Show
Awarded in honor of early amateur Eunice Thompson, W1MPP, for the top entry in the Old Equipment Contest at the Annual Conference.

People's Choice
Awarded to the entry that receives the most favorable votes from attendees and visitors to the contest. All entries including displays are eligible for this award.

router to cut an opening in the Zenith cabinet front panel outside the original round Zenith escutcheon. The Philco panel fit nicely behind the cutout. I added a couple of shim blocks to stop the Philco chassis at the right distance.

The Philco chassis had a tuning meter above the dial, and the Zenith cabinet was just large enough to accommodate the chassis, with the tuning meter just under the speaker shelf. However, the escutcheon I had was not large enough to display the meter so I removed it. A single 600-ohm resistor replaced the meter resistance in the AVC circuit. I also decided to construct a replacement for the broken original dial.

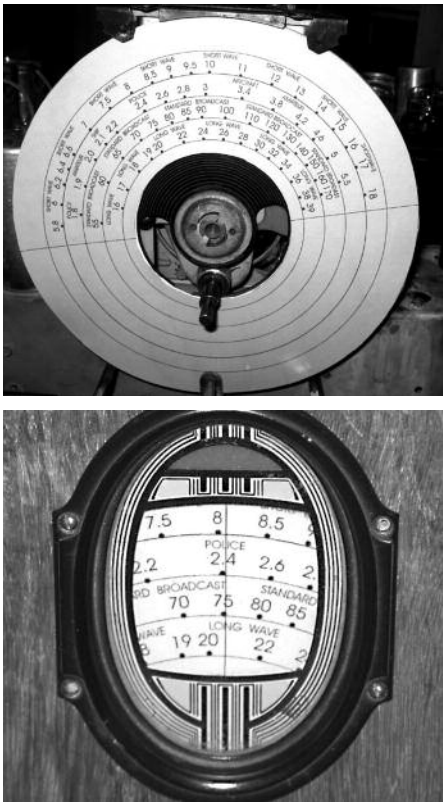
I used the original dial assembly and sandwiched the original dial with a new one printed on card stock. I used Corel Draw to lay out the new dial with the four bands arranged as on the original, but on smaller circles so they would display properly with the smaller Philco escutcheon I had purchased. I printed the dial with a yellowish-orange background to simulate the aging of the original dial.

Fortunately I found an example of the original dial online that was a good guide for laying out the numbers and the identification of various dial segments. The printed card stock was taped over the original, damaged plastic dial after I taped a couple of extra layers of paper to the front and back of the original to lend support and stiffness where pieces were missing.

Since this assembly is not translucent like the original dial, the original dial index could not be "projected." So I taped a straight piece of #34 magnet wire behind the escutcheon glass to serve as an index. I covered the back of the escutcheon and the index wire with a sheet of clear transparency plastic to prevent the moving dial from contacting and rubbing the wire.

I restored the Philco chassis by replacing about 18 capacitors and a few resistors. Most of the tubes were good, though a couple were missing. The electrodynamic speaker was missing from the Philco chassis, so I tested the radio with a 12-inch electrodynamic speaker from another radio until I was reassured that the Philco was working okay. Then I located an output transformer and a 5H Philco choke from a TV set in my junk for constructing a replacement speaker using a permanent magnet type. The Zenith cabinet would accommodate an 8-inch speaker, and I purchased a Celestion Model 8-Fifteen guitar speaker which fit comfortably.

I wired this in using the output transformer and the choke to replace the filtering action of the field coil in the original electrodynamic speaker. Once I found that this combination worked well, I mounted the output transformer and choke on the speaker board near the speaker. I made a



The reconstructed dial before and after installation in the cabinet.

The now-"married" chassis and cabinet. Note replacement speaker and output transformer in rear view. Filter choke not completely visible.

4-pin plug for the speaker wires with a 4-pin tube base, adding brass tubing over one of the smaller pins to mate it properly to the chassis socket, which has three larger pins and one smaller pin. The chassis was secured to the cabinet in much like its original configuration: at the front by two wooden blocks glued to the front panel to hold the chassis down and at the rear by two bolts through the cabinet floor.

I call the finished hybrid set a "Zenico." I made up a Philco-like diagram for the inside of the cabinet and will stick a label and description on the cabinet bottom to give the next owner a perspective on the set. The broadcast, shortwave and long wave bands are sensitive and easy to tune. Best of all, the Philco chassis that was probably going to sit on the shelf for many more years is now hooked to a speaker and is in a cabinet that was built about the same time.

One of the first radios I acquired when I started collecting was a Zenith 6V-27 with a vibrator supply. Despite my efforts, it always seemed to hum too much and I traded it for another radio. Now I again have the 6V-27 cabinet which I always liked and it houses a very nice-sounding radio. I wanted to incorporate the Zenith airplane dial but that adaptation would have probably meant restructuring the tuning mechanism of the Philco chassis, which seemed like a much more difficult task. Though far from an original set, the combination retains the character of the two brands, an attractive Zenith cabinet and an impressive Philco chassis.

RADIO REHAB 101

EDITED BY **DICK PARKS**, 2620 LAKE RIDGE CT., OAKTON, VA 22124
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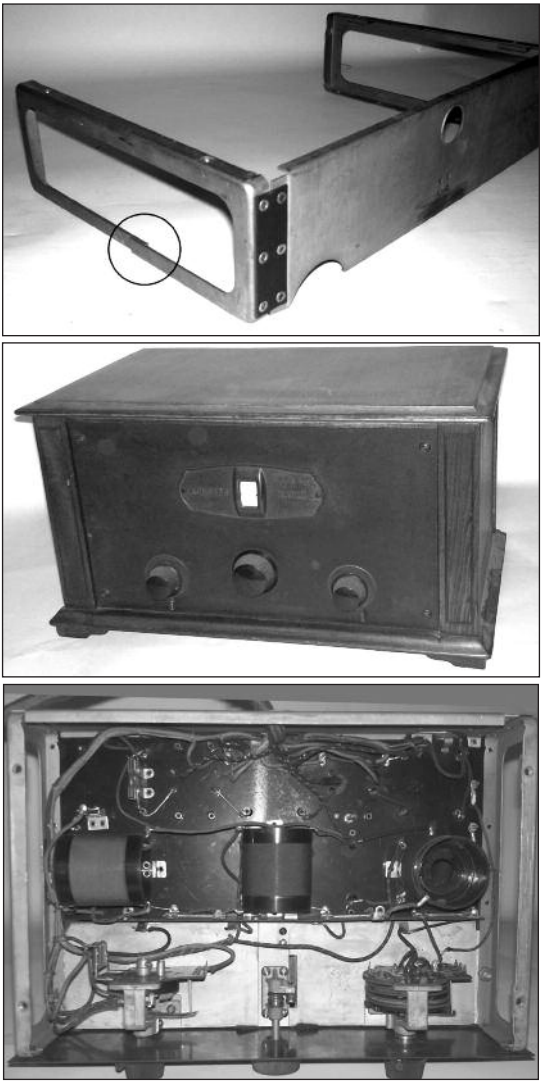
Lonely and Unloved—Investigating an Old Kolster 6D: Part 2

Frederick Kolster was famous in the '20s for having invented a "decrementer" while at the National Bureau of Standards. This apparatus allowed measurement of the damping of the RF envelope of a spark transmitter impulse. The government had a spec for that, and the decrementer made enforcement possible. He went on to invent the first practical radio direction finding apparatus. In Part One of the Kolster project, I described the situation faced by Brandes, subcontracting for the Federal Telegraph Company, for whom Frederick Kolster was a lead engineer.

Distributors were sending unreliable seven- and eight-tube radios back at a 60% rate. Later, in 1925-26, Kolster designed this low-cost Model 6D, a six-tube set. By 1929, there was $3 million in unsold sets on Kolster's hands, and they were all dumped at discount. My father had one of these when he was in high school, and his worked fine.

I had acquired a pair of these receivers and described, in Part One, how I rebuilt one chassis that had previously been extensively altered. In stripping the chassis frame, I noticed there were insulating gaps in its structure. I wondered whether the designer(s) had tried to avoid establishing "shorted turns" in the frame that might have interacted with the RF fields of the tuning coils and reduced the set's performance somehow. Figure 1



Top to bottom: Kolster 6D Chassis Frame (Fig. 1), the "Better" Model 6D (Fig. 2), under the 6D (Fig. 3).

shows the bare frame.

The riveted-on heavy fiber insulating piece in the foreground preserves an open circuit even when the metal panel is mounted at the far end of the frame. Now imagine this frame turned over and with its phenolic baseplate attached; there are also gaps (one is circled) on each side piece, preventing potential shorted turns there as well. How and why did these measures find their way into this design? What might be their effects? Did other manufacturers resort to such measures? My unmodified 6D (Figure 2) has still-functional potmetal parts and only one bad audio transformer. I put it on my bench and started to think of a couple of experiments.

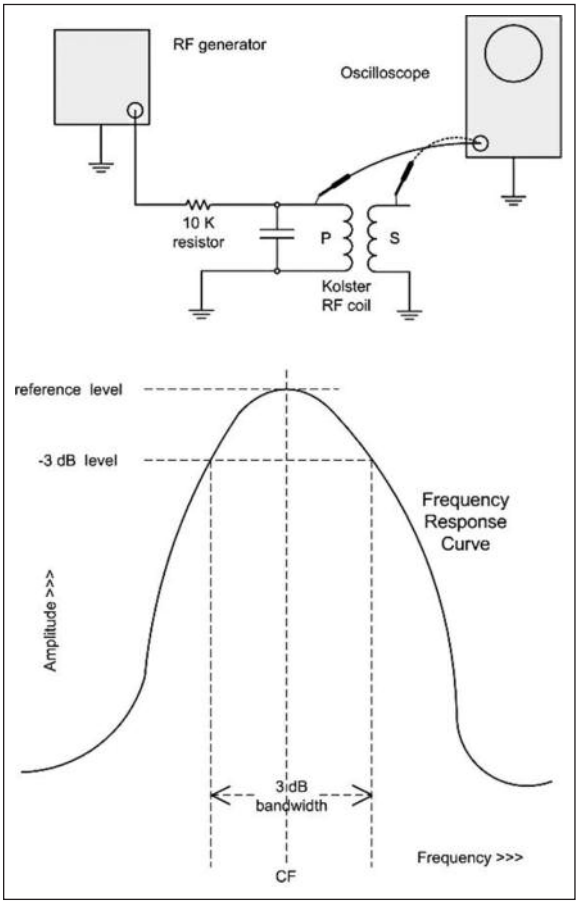


Fig. 4. Setup for Q measurement of Kolster RF coil.

A look underneath (Figure 3) shows open wiring and the typical three-axis mounting for three tuning coils. Components and tubes mount on a phenolic panel. A fourth tuned circuit is a variometer at the lower right, allowing for coarse tuning of the RF input stage by front panel control.

I replaced the open audio transformer with a new part from Antique Electronics and added six good 201A tubes. I set up power using one of my multi-output supplies. The schematic calls for the usual 6 volt +A supply and several B voltages: +22, +67, +90, and +135 volts, as well as -4.5 and -9 volts of C bias. That done, I fired up the radio and pushed a signal through from an RF generator. This uncovered the bad (and only) bypass cap on the +90 volt bus. That fixed the radio came alive again, after 88 years.

Now it's time for a lesson from EE101: shorted turns on or near any RF coil will present a load, absorbing energy from the RF magnetic field. What happens in such a case is a reduction in the "Q" factor. The parameter Q is a dimensionless "Figure of merit" that can apply to a component like a coil or to an entire network of parts. Q can be a measure of tuning sharpness, and one simple formula is Q = CF ÷ BW, where CF is center frequency and BW is the frequency difference between -3dB points on a response plot. You can sometimes find shorted turns within high-end receivers as a purposeful way to widen selectivity.

In the boatanchor SLR-M receiver, a three-position switch shorts out parts of a third winding inside two IF transformer cans, and this switch is labeled "Bandwidth." My Scott RBO "morale radio" has a similar

circuit. The effect is to widen the frequency response of the transformer and lose a bit of gain, but there's plenty to spare in the IF chain.

However in general, shorted turns are to be avoided. I set up one of the Kolster RF coils, with a fixed mica capacitor in parallel in this circuit (Figure 4). The 10 K resistor is there to represent the 10,000 ohm plate resistance of an '01A triode, as given in the tube manual. Let's imagine the equipment is arranged as in Figure 4, and these measurements result at the coil secondary:

Fig. 5. Test Jig: Kolster RF coil.

CF = 1000 KHz;
reference level = 1 volt;
-3dB level = 0.707 volt;
The two offset frequencies at the -3dB points are 996 and 1006 Khz.

The simplified equation for apparent Q of the RF tank using those values is Q = 1000 ÷ (1006 – 996) = 100. It is simplified in that all the losses are assumed to be in the coil resistance and in the plate resistance reflected into the tank. We neglect any secondary winding load, because it goes to a tube grid with no additional resistance.

"Q" is useful because we can measure how circuit changes affect the performance of our radios. As Q increases, tuning becomes sharper and more selective, but bandwidth decreases and audio will drop off at the high end. Sometimes we see an RF coil wound around a carbon resistor; The resistor lowers the Q of the combination but may make the coil perform better as a choke over a wider range of frequencies than as a coil alone.

Now let's look at the Kolster coils. Figure 5 is a photo of one of the RF coils. The primary is the solenoid winding and the secondary is an edge-wound winding you can see inside the form.

I set up the circuit of Figure 4 and measured the actual response of this coil with and without the shorted turn you can see toward the bottom of the coil. With a fixed cap of 180 pf, the peak frequency was 771 KHz, and the -3 dB points were at 767 and 775 Khz, for an apparent Q of 96 for the RF coil as driven by a 10K source resistance. With the shorted turn added over the primary near the grid end, the resonant frequency rose to 805 Khz and the bandwidth rose to 10 KHz, for a Q factor of 80.5. Looks like the shorted turn lowered the Q as predicted.

The next thing I did (Figure 6) was to pull all four RF tubes in the Kolster chassis. I connected a 10 K resistor to the plate terminal of the first RF socket and also tacked 10 K resistors from grid to plate at the second and third RF tube sockets. With my RF generator (and frequency counter) pushing a signal into the first 10K resistor, I could observe a detector grid signal with the 'scope probe. With the tuning set near 800 KHz, I found the overall RF bandwidth there to be 9.5 KHz.

Next I placed a single shorted turn on each of the three RF transformers, and got much lower response through the signal path but a -3 dB bandpass from 759 to 811 KHz—52 KHz! Obviously, my added shorts were killing the radio's throughput. If the Kolster chassis had somehow reduced signal strength before those gaps were added, the loss was nowhere near as large as the three shorted turns I had added to the RF coils.

To see whether Fred Kolster really

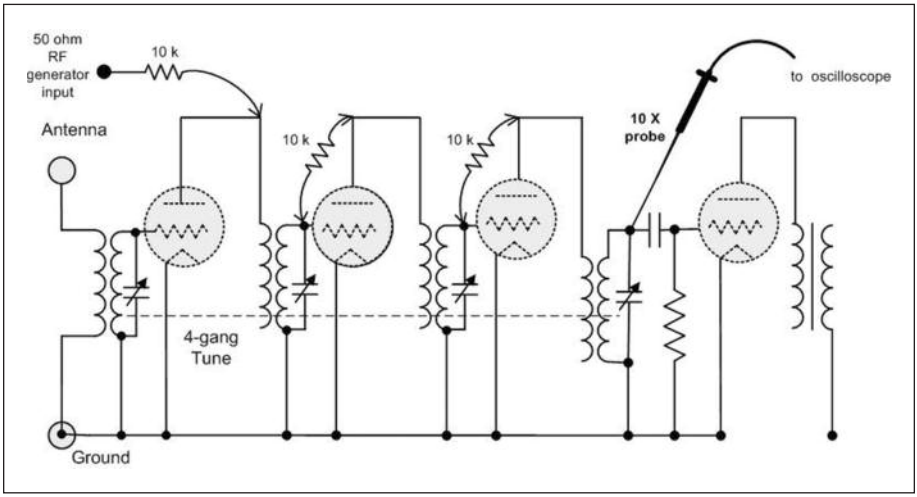


Fig. 6. Forcing a signal through the Kolster RF chain.

needed to design those chassis frame gaps into his six-tube receiver, I tack-soldered short wires across the side gaps and at the back corner of the frame and ran another test using those three 10K resistors and without my extra shorted coil turns. RF bandwidth increased slightly from 9.5 KHz to 10.0 KHz. So those gaps really were reducing the shorted-turn effect. But the shocker was the change in gain I would observe when the chassis frame shorts were removed in normal operation.

I put the tubes back and ran a test at 1000 Khz with a modulated RF input signal and with the radio powered on. I set the output level at three volts peak-to-peak across the speaker leads, then took away the three shorts from the gaps in the chassis frames while the set kept running. To my surprise, the speaker output level jumped to 15 volts. Unbelieving, I repeated the test, making sure not to move the chassis in any way while changing the shorting links, and got the same results. A little bit sharper bandwidth and three times the throughput gain! That's about 9 dB in output power difference.

This proves to me that Kolster knew what he was doing when his shop developed those chassis insulating gaps. By 1926, neutralization was being used to squeeze maximum gain out of RF triode circuits, and the well-known Neutrodyne receivers were being offered. Did those sets also avoid chassis ground loops, and if so, how was it done? Were there patent restrictions that made neutralization licensing costly to designers? Readers' comments are solicited.

Classified Ads

Old-time ads are free to members collecting and restoring equipment for personal use. The AWA Journal *classified ads are also available for browsing in the* "AWA Journal On Line Edition" *on our Internet Web site (www.antiquewireless.org). Please observe the following: (1) include as SASE if acknowledgement is desired; (2) material must be more than 25 years old and related to electronic communications; (3) give your full name, address and zip code; (4) repeats require another notice (we are not organized to repeat automatically); (5) the AWA is not responsible for any transaction; (6) we retain the right to reduce an ad's size if over seven lines; and (7) closing date is six weeks prior to first day of month of issue. Ads received after that time will be held for the following issue. Mail all ads to: RICHARD RANSLEY, 25 Smith St., Sodus, NY 14551-1007 or email to richardransley@ mac.com.*

SELL/TRADE—MILITARY

WWII carbon microphone T-17-B with SW-109 switch and PL-68 plug. Two ea. WWII PTT control switch for T-30 throat mike with PL- plug and JK-48 jack; one type SW-141-T and one SW-141-V (including neck lanyard). WWII radio transmitter control box, Type BC-451-A, serial number 2093, used with SCR-274/ARC-5 transmitter. WWII radio antenna, part number AN-130-B, used with radio set BC-1000 and a component of SCR-300 set. BA-BB-54A 2 volt wet cell battery. Four ea. Western Electric Model F3 handsets with PTT and 4 pin connector. Four ea. Wheeler Electric sound powered handsets with phone plug. John Zima, 1360 Reed road, Churchville, NY 14428; Tel. 585-293-3023

SELL/TRADE—PARTS

Two ea. vacuum capacitors, VC200-20, 20 pf, 20KV John Zima, 1360 Reed Road, Churchville, NY 14428; Tel. 585-293-3023

WANTED—BC/SW SETS

I would like to build/restore a Meissner 10-1104 7-tube BC-SW radio. Looking to buy either a repairable chassis OR the Ant., RF and Osc. transformers 14-7478, & 14-7480. Ron Harshbarger, 340 County Road E. Houlton, WI 54082; Tel. 651-402-1387

WANTED—LITERATURE

RadioCraft 1938 to 1945 and *Radio News* 1938 to 1943. Richard Petersen, 140 Grand Ave., Marion, IA 52302-5013

Want Radio Shack catalogs 1954, 1964, 1965, 1972, 1973. Have for sale/trade old Allied, Lafayette, BA, Heathkit, WRL, Walter Ashe, Cameradio and other radio catalogs. Al Bernard, P.O. Box 690098, Orlando, FL 32869-0098; Tel: (407) 351-5536

WANTED—PARTS

For my 1956 RCA 45 rpm record player/AM radio Model No. 6-BY-4 (also referred to as The Skipper), I would like to have the optional power adaptor Model No. RK-198. If you have and are willing to part with it, I would be willing to pay a generous amount. Thanks! Joe Bentrovato, 84 E. Munson Ave., Dover, NJ 07801 Tel. 973-361-7392; Email: jbentrovat@msn.com.

WANTED—INFORMATION

Want any info on UHF Transmitter/Receiver Type PF-3, 56-60 MHz, by Haigis Laboratories of Maple Shade, NJ. Contact Bill Smith, N9TT, P.O. Box 110, Fountaintown, IN 46130-0110

FREE

Free to a good home. RCA Victor 10BP4 television CRT. Pick up in southern Maine. Alex Mendelsohan, AI2Q, 164 Sea Road, Kennebunk, ME 04043

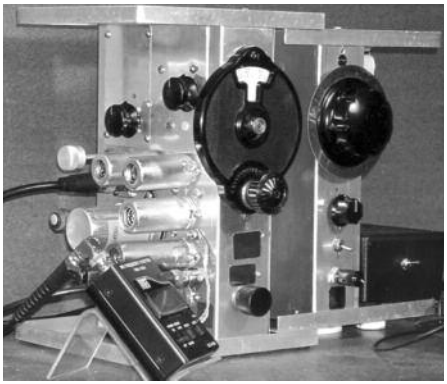
BY VERNON YEICH

Effective Q-Multiplication For Complex Filters – or – The Regenerative CW Receiver On Steroids

The idea of including more than one tuned circuit in the feed-back loop for a regenerative receiver may have been overlooked in the early development of radio communication; or perhaps it was considered now and then but discarded for one or more good reasons. Yet the spectacular gain in sensitivity and selectivity (effective Q-multiplication) by regeneration in amplified tuned circuits provokes a further good look.

My regenerative 40-meter CW receiver described in *The AWA Journal* for July, 2010 under the title "Regenerative Radio's Unfinished Business," has now been modified to make use of two mutually-coupled tuned circuits (See Fig. 1). The tuned circuits are link-coupled as shown in Fig. 2, with coupling being somewhat less than critical. Eighty percent (80%) of critical provides best selectivity.

The 60dB bandwidth of the modified receiver was measured with a moderately strong signal applied to the receiver's antenna connector. With an input signal level of 500uV (9S+20dB), the measured 60dB bandwidth at 7.0 MHz was 25.5 kHz, which, I believe is getting into simple superheterodyne-performance territory. Note:



The 40-meter CW receiver as it appeared in "Regenerative Radio's Unfinished Business" (in The AWA Journal *for July, 2010).*

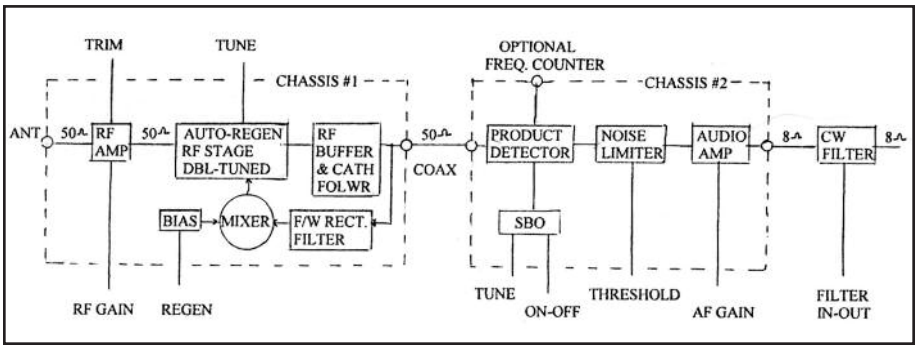


Fig. 1. Function diagram of the double-tuned receiver with stabilized regeneration and SBO.

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For this measurement, the TRIM tuning control was peaked at test frequency. Although not included in the feedback loop, this tuned circuit's contribution exists in the receiver's measured selectivity.

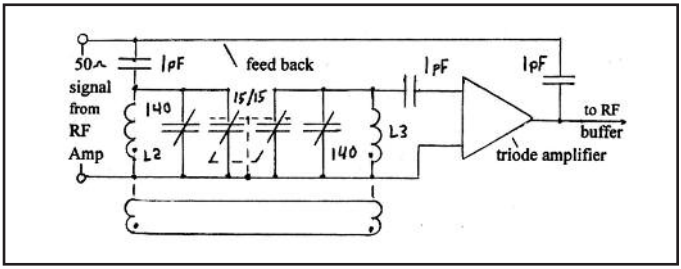

Fig. 2. Circuit diagram for the link-coupled, double-tuned, feedback loop.

It appears obvious that for more complex filters it would become increasingly difficult to provide variability for tuning. But for fixed-frequency use the idea might have been, or might yet be, useful. The required level of amplification for effective regeneration might also increase with complexity of the filter.

In Fig. 2, the tuned circuits with inductances L2 and L3 are easily aligned, in that order, with the dual ganged tuning capacitor fully meshed (max capacity). The ganged capacitors should have a grounded shield plate for shielding each stator section from the other to minimize capacitive coupling between the tuned circuits as well as to minimize interaction that would interfere with precision of alignment.

Two significant features of this receiver, whether with one or more tuned circuits in the regenerative loop, are that it provides about 60dB of direct amplification before adding converter (oscillator) noise to the signal; and that the large impedance difference (mismatch) between the RF Amplifier output and the regenerative stage tuning circuits provides 60dB or more antenna isolation for the regenerative stage, as well as a similar degree of attenuation for the signal before selection and amplification in the regenerative stage. This last is mentioned with regard to criticism of simple regenerative receivers for performance defects such as "pulling" and "broadening" with large-signal inputs. Neither defect is noticed with this receiver.

In this receiver, stabilization of the regeneration function is accomplished in the same way that automatic gain control is acquired in modern receivers. Stabilization provides single-handed tuning over the extent of the Ham band and, together with a ten-turn regeneration control and sensitive frequency counter, it widely spreads out and facilitates fast, repeatable and precise selection of the critical operating point on the oscillation threshold slope.

Convenient and repeatable selection of the favorable operating point depends on a reliable reference. This reference is provided by the counter that will display all zeros, as the regeneration is adjusted, until the oscillation-frequency is abruptly displayed. This happens even at zero-beat when there is no audible indication. Successive bandwidth measurements tend to support the worthiness of this idea.

As for the separate beat-oscillator (SBO) feature, that is the most powerful part of this unusual receiver. I cannot do better than quote H. A. Robinson, W3WL, who published the immensely informative and useful article titled: "Regenerative Detectors" in *QST*, February, 1933. Robinson said of the SBO: "In truth, it is necessary to hear a receiver of this type in operation and to actually handle it in service to appreciate fully the improvement in stability, sensitivity and ease of operation."

Related Reading

V.Yeich, "Regenerative Radio's Unfinished Business", *AWA Journal,* Vol. 51/#3, July 2010.

V. Yeich, "An Unusual 40 meter CW Receiver", *Electric Radio*, #227, April 2008.

BY ERIC P. WENAAS

What's "de" Story on the Spelling of Lee De Forest?

Part II. Lee's Surname In Patents, Publications and the Press

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The statement in Lee DeForest's autobiography, "*While at Yale my brother and I resumed the style of earlier generations*," coupled with statements that his ancestors living in America spelled their surnames de Forest, has been interpreted by many to mean that Lee preferred the de Forest spelling. It was shown in the first installment that the surnames of Lee's ancestors were actually spelled DeForest—not de Forest. Further, it was shown that Lee, his father (Henry Swift) and his grandfather (also Lee) spelled their surnames DeForest—not De Forest as stated in the autobiography. Finally, it was shown that Lee did not change the spelling of his name while he was at Yale.

How could all this be possible? A careful reading of the 1949 draft of DeForest's autobiography, returned to the publisher after he made corrections, reveals that the above quote did not appear in it. Also, many corrections that DeForest made by capitalizing the names of his ancestors were not included in the published version. It seems clear that the words in DeForest's autobiography about the spelling of his ancestors and immediate family are attributable to the publisher and not DeForest.

This assertion is supported by a biographical serial of fourteen articles prepared by DeForest specifically for Hugo Gernsback's *Radio News* beginning with the October 1924 issue. A footnote to the serial entitled "The Life and Work of Lee DeForest" says it was prepared "under the personal direction of Dr. DeForest." The following statement appears on page 464:

Lee DeForest was born in Council Bluffs, Iowa, August 26, 1873. He is the elder son of the late Rev. Henry Swift DeForest and Anna Margaret Robbins. The family to which he belongs is one that could be envied. The American branch is descended from Isaac DeForest, who migrated from his home in Leyden, Holland to New Amsterdam in 1636. The line of descent is unbroken in America from the first of the clan to the present time.

Two paragraphs later he continues:

Lee DeForest's father…[Henry Swift]… named his first son, Lee, after his own father, Lee DeForest, who was a son of Gideon. Gideon…named this son Lee out of admiration for his dashing commander.

DeForest declares that all of the ancestors in his direct line including Isaac, the first of the clan, used the DeForest style of spelling. These quotes from DeForest's version are supported by the independent research reported in the first installment.

While DeForest never explicitly stated that he preferred any particular form of spelling, it is indisputable that at some point Lee began to sign his surname de Forest. A case will be made here that the spelling of his signature is not by itself prima facie evidence that he preferred this spelling. Perhaps the most important factor is how he and others spelled his name in published documents during his lifetime.

It will be shown that DeForest used all three forms of spelling in his published documents—DeForest, De Forest and de Forest—

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and indiscriminately at that. It will also be shown that others used the "De form" as well, and that the two De forms appeared more often than the "de form" by a wide margin.

First Appearance of De Forest and de Forest Spellings

For the first two years after Lee's graduation from Yale in mid-1899, Lee continued to spell his surname DeForest on his letters and notebooks to the exclusion of the de Forest spelling—confirming the conclusion reached in the first installment that he did not resume the de Forest spelling while at Yale (see Fig. 1). The De Forest spelling (De followed by a space) appeared first in the press on April 21, 1900[1], and shortly thereafter the same spelling was used in his first patent, which had an application date of Sept. 1, 1900.

This new spelling was not something of DeForest's choosing. Much of the press as well as the U.S. Patent Office (USPO) had an editorial policy to separate the so-called "De particle" from the remaining surname whenever part of the remaining name began with a capital letter—regardless of how the individual's name was actually spelled. As a result, the DeForest spelling without a space did not appear in patents issued by the USPO to anyone named DeForest from its inception to the early 1970s, when the USPO finally changed its editorial policy.

To see that this is true, one only needs to go to *Google Advanced Patent Search* and enter the DeForest spelling for issued patents (capitalization is ignored but spacing is not). Click on "Search Tools," then "Sorted by Relevance," and then "Filing Date: Oldest." You will find there are no patent returns for the DeForest spelling before the early 1970s, and only seven returns for patents before that time with the Deforest spelling (without a capital "F"). A search of U.S. Patent Office documents from 1790 reveals that the first one issued with the DeForest spelling was actually U.S. 3,796,918 issued to Wesley V. DeForest on March 12, 1974, which resulted from an application filed on March 26, 1973.

A search of USPO publications entitled *Index of Patents* Issued from the United States Patent and Trademark Office for the years 1790 to 1975 reveals the same is true for *all* names beginning with De followed by a capital letter. For example, use the web address referenced at the end of this sentence to see an eye-popping list published in 1920 in which all names beginning with a De that are followed by a capital letter have a space inserted after the De[2]. Further, a number of names appearing in USPO documents with the De spelling followed by a space were researched and found to be incorrectly spelled. For example, the prolific inventor Allen De Vilbiss, Jr. with 30 patents issued by the USPO under the De Vilbiss name (with a space after De), was actually spelled DeVilbiss in real life according to many independent documents[3].

The spelling "Lee De Forest" (with a space after De) appears in the preamble of Lee's first three patents he applied for although the "DeForest" form appeared in the signature

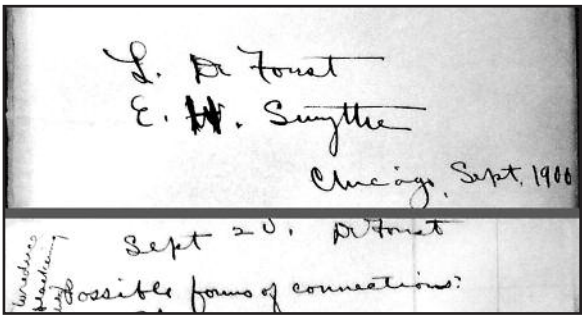


Fig. 1. Lee DeForest's notebook with a dateline of "Chicago Sept. 1900" on the cover contains his signature on an interior page with the DeForest spelling (no space between De and Forest) followed by the date Sept. 20, supporting the contention that he was still using that form 15 months after graduating from Yale. (Lee and Marie de Forest Papers, History San Jose)

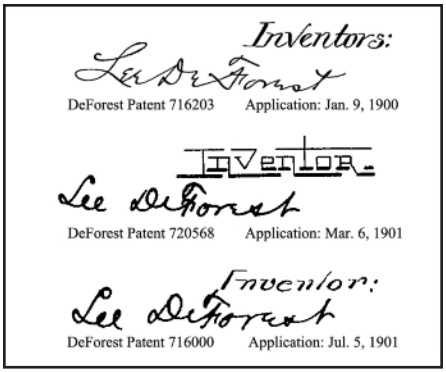


Fig. 2. The signatures on the inventor lines of the first three patents DeForest applied for were actually signed by his attorneys, who linked the "De" and "Forest" together to form the single word DeForest, which is how DeForest spelled his name at the time of filing for each of the three patents.

line for the inventor on the drawings accompanying these three patents (see Fig. 2). Since it was customary for the patent attorneys to sign in this space for the inventor, none of the three signatures on these patents is actually DeForest's. Note that the signature on the first patent is clearly distinguishable from those on the other two patents because the latter two were filed by a different legal firm than the first. However, note that in all three signatures the "De" and "Forest" are linked together to form the single word DeForest, which is how DeForest spelled his name at the filing times for all three patents.

By the time DeForest filed his fourth patent (U.S. 730,246) on March 8, 1902, the spelling in the preamble had changed from De Forest to the de Forest form, as did the spelling in the signature line. Thus, Lee's decision to use the de Forest spelling on his patents can be dated to the period between July 5, 1901 and March 8, 1902, the filing dates of his third and fourth patents. This time frame can be further refined by examining the initials he entered in his notebook at that time, having the dateline "Chicago Sept. 1900" on the cover. DeForest used the De form of his signature in all of his notebooks up to the June 21, 1901 entry in his Chicago Sept. 1900 notebook, but beginning on August 4, 1901 and thereafter he used the de form (see Fig. 3).

Since Lee did not resume the de Forest spelling at Yale, and since the change in spelling of his name can be pinpointed to this specific interval of time, the question arises, "Did something important happen to Lee at this time that may have compelled him to change the spelling of his name to de Forest?" Well, perhaps. DeForest had his first successful long distance transmissions of dots and dashes by wireless across the city of Chicago as well as from Lake Michigan on July 19, 1901, an event that was attended by the press. Here is what DeForest said about the event, which he obviously relished, in his autobiography.

The Chicago press had been tipped off concerning the first attempt on the Great Lakes, indeed in all America, to send dots and dashes by wireless. When the yacht had picked me up from the crib and had landed the party at Chicago, I was eagerly questioned by reporters. Next day several newspapers carried the front-page story. It was my first taste of publicity. I liked it!

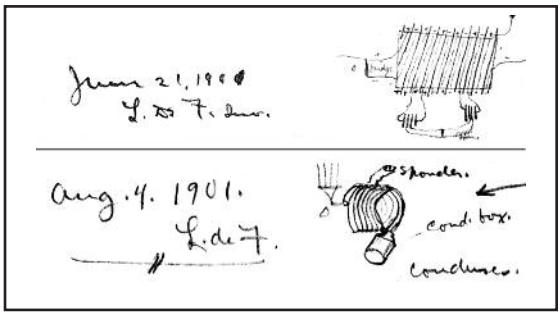


Fig. 3. The time frame in which DeForest began to sign his name de Forest is memorialized in his "Chicago Sept. 1900" notebook where he initialed his name with the "De" form (followed by the abbreviation for inventor) for the last time on June 21, 1901 (top), and began to initial his name with the "de" form on August 4, 1901 (bottom). (Lee and Marie de Forest Papers, History San Jose)

Indeed, a *Chicago Tribune* reporter sketched the equipment DeForest used and made quite a story out of it (see Fig. 4). DeForest went on to say *"I was convinced that my immediate future possibilities required that the start in commercial wireless should be made in the East. And in New York the start was made."*

What DeForest did not say was that the *Chicago Tribune* and other papers that carried the story used the De Forest form of spelling rather than the DeForest form that he was then using, despite the fact that the reporter had personally interviewed DeForest. A check of the *Tribune's* treatment of names confirms that they had the same policy as the USPO of inserting a space between De and a second capital letter in every name, regardless of how it was spelled.

DeForest moved to New Jersey in August of 1901 where the *New York Times* became the primary newspaper chronicling his activities. He would soon find that the *Times* had the same editorial policy as the *Chicago Tribune*, and in fact this venerable newspaper used the De Forest form about 90% of the time when referring to the man throughout his entire life, including his obituary that was published on July 2, 1961[4].

DeForest, who was a proud but pragmatic man and had a real affection for his family name instilled in him as a boy (i.e., DeForest), may have seen the proverbial handwriting on the wall with his family name repeatedly appearing in public with a space after De. Perhaps he decided to take the preemptive action of changing his name to de Forest to align it with the policies of the USPO and newspapers, which was to use a space after the De particle. He surely realized that the de Forest spelling would have exuded a sense of class, lacking in the De Forest spelling, that would have enhanced his stature and helped him to compete with Marconi, who was well established in London and New York.

Consider the following quotation from Philip Gilbert Hamerton's book written in that era, *French and English: A Comparison* (1889)[5]:

After careful observation I have arrived at the conclusion that the French de before a name, whether rightly or fraudulently borne (for that makes little perceptible difference), is equivalent to about ten thousand pounds in the [London] marriage market and will often count for more. It is wonderful that it should be so, considering that all French people know how frequently the de is assumed; but it seems to be valued as a mark that the bearer belongs to the gentry, which, in fact, he generally does. The genuine nobility who have become too poor to keep a place in genteel society, and retain it only for a short time. If they did not drop it themselves, the world would drop it for them.

It is of some interest to see how the authors of articles in venerable electrical journals of the day adapted to DeForest's name

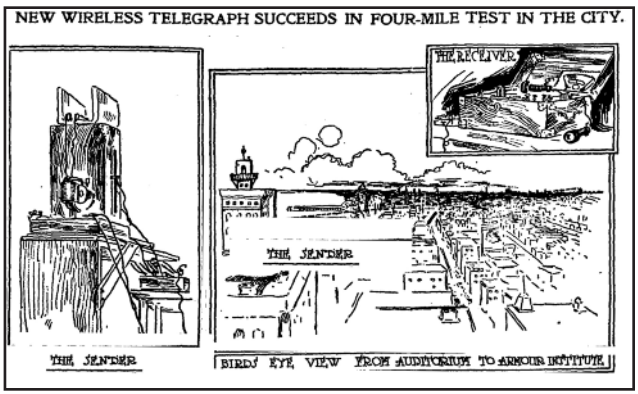


Fig. 4. The Chicago Tribune *used the "De Forest" form of spelling in its coverage of DeForest's first successful wireless experiment—complete with sketches of his equipment—in the July 19, 1901 issue of the newspaper, the only major event in DeForest's life at the time he changed the spelling of his name to de Forest.*

Journal	Years	Vols.	De Forest	de Forest	DeForest
Western Electrician	1900-1908	27-43	37	3[1]	4
Electrical Review	1900-1921	36-79	20	19[2]	7
Electrical World	1900-1922	35-79	36	19[3]	9
		Total	93	41	20

[1] 1st Appeared: Oct. 29, 1901
[2] 1st Appeared: Dec. 19, 1903
[3] 1st Appeared: May 17, 1902

Table 1. Number of articles appearing in the Electrical World*,* Western Electrician *and* Electrical Review *magazines with the three common DeForest spellings indicated in the header during the four periods indicated in Column 2.*

changes. To that end, three early electrical journals that covered DeForest's exploits in depth during the first two decades of radio were surveyed—*Electrical World*, *Western Electrician* and *Electrical Review*. Each issue was word searched for all entries of the three forms using the same Google search queries to obtain wide and unbiased coverage. Only articles were counted, and only when there was a reference to Lee as a man—as opposed to his company or a piece of hardware[6]. Each article was counted only once regardless of how many times his name appeared in the article. None of the three magazines appeared to have any editorial bias on the selection of surnames with the "De" versus "de" particle[7].

The results are shown in Table 1 and the results speak for themselves—the two De forms together were used almost three times as often in articles as the de form. As an aside, the first time the de form appeared was on Oct. 29, 1901 in the *Western Electrician* as an adjective in the phrase "de Forest-Smythe system," a phrase that the U.S. Navy always spelled "De Forest-Smythe system." The first time the three forms appeared in any of the three magazines was July 27, 1901 for De Forest, May 17, 1902 for de Forest, and April 25, 1903 for DeForest.

Years	De Forest	de Forest	DeForest
1900-1909	13	5	3
1910-1919	6	9	-
1920-1929	13	8	3
1930-1939	6	5	6
Totals	38	27	12

Table 2. Number of articles written by DeForest in 77 articles published in 38 different journals with the spelling appearing in the byline indicated in the header for Columns 2-4 during the four time periods indicated in Column 1.

Years	De Forest	de Forest	DeForest
1900-1909	7	4	1
1910-1919	1	2	-
1920-1929	3	5	4
1930-1939	1	3	-
Totals	12	14	5

Table 3. Number of letters to the editors of eleven different nationally distributed magazines with Lee's name spelled in the signature line as indicated by the heading on Columns 2-4 during the four time periods indicated in Column 1.

Survey of DeForest Articles and Letters to Editor

The focus up to this point has been on how the patent office, newspapers, and authors and editors of electrical journals spelled Lee's name. A more important question is how Lee's name appeared on the bylines of the articles he published, and on the signature lines of the letters he wrote to journals as a "letter to the editor."

A survey of articles written for electrical journals and mass media magazines with Lee's byline was made using several different search engines as well as my own personal collection of mass media magazines, which unfortunately taper off after the early 1930s. I had to limit this search somehow so I decided to stop it at 1940

because the period before this date covers most of his productive life including radio and Phonofilm.

A total of 77 articles in 38 different journals were found, with the results arranged in four equal periods between 1900 and 1939 as displayed in Table 2. It should be noted that there were almost twice as many articles with the De form than with the de form, and also that the number of articles appearing with the DeForest spelling increased significantly in the 1920s and 1930s as compared to the first two decades.

A legitimate question to ask is whether the editors of the magazines changed the spelling of DeForest's byline in the articles he submitted. While there is no good answer to that question, only the *Electrical Experimenter* was found to display a clear bias[8]. Despite the apparent bias, the six articles from this magazine, all using de Forest in the byline, were included in the survey under the theory "it is what it is"—equivalent to the legal dictum, "the document speaks for itself." DeForest allowed his name to be repeatedly spelled in his articles as it appeared in the bylines without any protest, and that is how his contemporaries, historians and the public in general perceived he spelled his name.

The survey of Lee's letters to the editor resulted in 31 letters, which were used to compile Table 3 with three different forms of his spelling (see Fig. 5). The number of letters with the De form of the signature is essentially the same as the de form. The sample size is too small to draw any conclusion about trends, but there is a hint of a return to the DeForest form in the 1920s. Of course, the caveats from the previous paragraph apply here as well. One must conclude from the bylines on articles and signature lines on the letters to the editor that DeForest was ambivalent about the form of his signature throughout the years, and while he used all three, he clearly favored the De form.

Signature line	Ref.
JERSEY CITY, N. J. LEE DE FOREST.	Aug. 1902* V. 40, p. 260
NEW YORK CITY. LEE DE FOREST.	Sept. 1903* V. 42, p. 446
Very truly yours, LEE DEFOREST. President	Jan. 1929 *Radio Broadcast* p. 394

*Radio World

Fig. 5. Examples of the three different forms of Lee's surname appearing in his letters to the editor of nationally distributed magazines are shown here.

Significance of the de Forest Signature

The remaining question is whether or not one's signature constitutes prima facie evidence of one's preference in spelling, particularly in the face of substantive usage of different spellings in one's life's work. Based on other examples, the answer is clearly no. Take Cecil B. DeMille, for example. He signed his name Cecil B. de Mille, but his name appeared in print as Cecil B. DeMille. Even the letterhead on his stationery was printed with the "DeMille" form while his signature appeared as "Cecil B. de Mille."

Fortunately for DeMille and historians as well, he specified his preference for spelling in his autobiography:

The oldest [spelling] seems to be deMil…but DeMill, Demill and other variations kept cropping up until my father's time. He spelled it and made it well known in the theater as DeMille. Sometime after his death, the family went back to the original small "d" for personal use, but kept the capital D for professional use. My brother and I have followed that rule[9].

Does this sound familiar? DeMille's story parallels that of DeForest, and in fact there is strong circumstantial evidence that DeForest became well aware of DeMille's approach and began to mimic it beginning in the 1920s. Both were active in Hollywood at the time and clearly knew each other because Lee DeForest was a second cousin to Bebe Daniels, who had appeared in DeMille's films beginning in 1919. DeMille and

DeForest belonged to the Society of Motion Picture Engineers, and both attended their meetings and presented papers there.

Lee began to use the DeForest form of his name extensively in his public life beginning in 1923, and yet retained the de Forest form in his letters. Beginning with his patent 1,629,152 filed on April 28, 1923, the DeForest form of his name suddenly began to appear on the signature line of his patents, replacing the de Forest form that had been used consistently for twenty years before (see Fig. 6)—although the USPO still issued his patent under the de Forest name.

Over half the remaining patents issued to Deforest (39 out of 71) used the DeForest form on the signature line. The De Forest spelling also began to appear in the printed letterhead of his De Forest Phonofilm Corporation stationery in 1926, and also on the letterhead of his Lee De Forest Laboratories company stationery in 1941 (see Fig. 7). The DeForest form of Lee's name also appeared extensively in Phonofilm documents such as stock offerings (see Fig. 8).

DeForest historian and biographer Maurice H. Zouary, a personal friend of DeForest, also believed Lee preferred the DeForest form. Zouary is cited here in the blog of Roger Deforest, a distant relative of Lee DeForest:

PS. I [Roger Deforest] spell the name as 'Lee de Forest, Ph.D.,' which is the way the man himself spelled his name for most of his life. Variations include 'De Forest,' 'deForest' and 'DeForest.' Maurice spells it 'DeForest.' I once asked Maurice which way de Forest preferred, and Maurice said de Forest's widow told him that Lee didn't care whether someone used one spelling or the other. Later in life—and de Forest lived to age 87—de Forest tended to use the spelling 'DeForest.'[10]

Indeed, Zouary wrote an authoritative biography of DeForest in 1995 in which he uses the spelling DeForest in the title and throughout the text—obviously because he believed Lee preferred that form. While

Fig. 6. Beginning with Lee's patent 1,629,152 filed on April 28, 1923, his name suddenly appeared again with three different forms of the "De" on the signature line in 39 out of the remaining 71 patents issued to him: in cursive writing (top), printed as DeForest (middle), or printed as De Forest (bottom). (Lee's patents 1,629,152; 1,722,280; and 2,391,554 respectively)

Roger Deforest's statement in his blog is hearsay twice removed, the fact Zouary used the DeForest spelling in his biography of DeForest supports the blog statement. Zouary's spelling is supported by the surveys presented here that show an increase in the frequency of the DeForest form of spelling in the bylines of DeForest articles, in the signature line of his letters to the editor, and in the signature lines of his patents beginning in the mid-1920s.

DeMille was not the only example of a person whose public persona was conveyed with a spelling that was different from the spelling used in his or her signature.

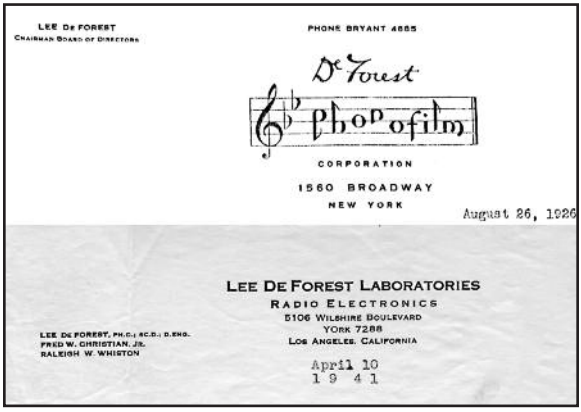
Correction to Part 1 of the DeForest article (in the Winter 2015 issue):

In the caption for Figure 2 (p.41), the "DE" in Henry Swift's surnname should have been spelled with a smaller "E" (i.e. DEFOREST) as on the grave stone shown in the figure. The same correction applies to the same surname that appears 8 lines down in the first column of page 42.

Consider the case of Herman A. DeVry, whose story not only parallels that of DeForest, but also has a direct connection with Lee DeForest through DeForest's Training, Inc., a school that DeVry created with support and approval of DeForest.

DeVry's public persona was conveyed with the DeVry spelling, which ubiquitously appeared in his eponymous company ads, his publications, U.S. census records, and in articles and books written by virtually all authors. Yet, he used the de Vry spelling in his signatures on a passport and draft card, and further, the de Vry spelling appeared on the inventor's signature line in six of the eight patents awarded to DeVry. While DeVry never expressed a preference in spelling, historians and biographers have used the DeVry spelling with the capital De exclusively. It appears that Herman's use of the DeVry spelling in public documents completely trumped the de Vry spelling appearing in his signatures and patents.

Unless an individual has expressed a specific view on his or her preference in spelling, it would appear that usage by the individual in public documents is preferred over the spelling of the signature. Lee DeForest was totally indiscriminate in the spelling of his name in his patents, articles and letters to the editor, and never specifically expressed a preference in the spelling of his name. His legal name was DeForest, he signed his name de Forest, and he often used all three forms in his public works—de Forest, De Forest and DeForest. Also, the majority of his contemporaries used De Forest or DeForest form when writing to or about him. Thus, it would appear that any of the three forms of his name are quite acceptable and appropriate when writing about him or referring to him in almost any historical context.


LEE DE FOREST
CHAIRMAN BOARD OF DIRECTORS

PHONE BRYANT 4885

De Forest Phonofilm

CORPORATION
1560 BROADWAY
NEW YORK

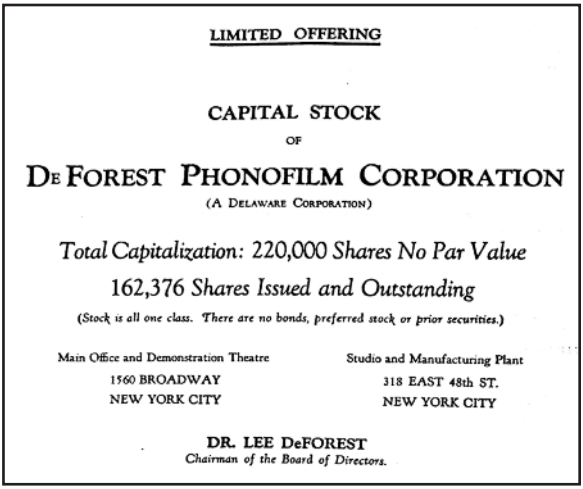
August 26, 1926

LEE DE FOREST LABORATORIES
RADIO ELECTRONICS
5106 WILSHIRE BOULEVARD
YORK 7288
LOS ANGELES, CALIFORNIA

LEE DE FOREST, PH.D., SC.D., D.ENG.
FRED W. CHRISTIAN, JR.
RALEIGH W. WHISTON

April 10
1 9 4 1

Fig. 7. While Lee may have signed his letters with the "de" form, he often he printed the De Forest form on many, although not all of the letterheads of his stationery he used during the 1920s through the 1940s.


LIMITED OFFERING

CAPITAL STOCK
OF
DE FOREST PHONOFILM CORPORATION
(A DELAWARE CORPORATION)

Total Capitalization: 220,000 Shares No Par Value
162,376 Shares Issued and Outstanding
(Stock is all one class. There are no bonds, preferred stock or prior securities.)

Main Office and Demonstration Theatre
1560 BROADWAY
NEW YORK CITY

Studio and Manufacturing Plant
318 EAST 48th ST.
NEW YORK CITY

DR. LEE DeFOREST
Chairman of the Board of Directors.

Fig. 8. The DeForest form of spelling for Lee as an individual became prevalent in official DeForest company documents in the 1920s and 1930s, an example of which is shown in this limited offering of stock in his Phonofilm Corporation in 1925. (Lee and Marie de Forest Papers, History San Jose)

The choice of spelling is up to the author and publisher, but both ought to be aware of the potential editorial problems associated with their choice. The last article in this series will address editorial problems that authors and publishers will face when writing about DeForest, particularly when choosing a "two-tier" spelling system, meaning that the man's name (e.g. de Forest) is spelled differently from his eponymous companies—either De Forest or DeForest. Many of these problems may go unrecognized by the casual reader, but they become obvious and dear to authors and editors, who will be faced with difficult decisions when preparing and editing manuscripts. It will also be shown that the DeForest and De Forest forms for the man were used almost exclusively in legal documents generated by the courts, attorneys, publishers and others in the course of lawsuits—to the exclusion of the de Forest form—a convention that exacerbates the problem of using a two-tier system in which Lee's surname is spelled de Forest.

Notes

1 The earliest reference to Lee found in the press was a wireless experiment in Milwaukee, WI, which was reported in *The Evening News*, Benton Harbor, MI., April 21, 1900, p. 3 with the De Forest spelling.

2 *Index of Patents Issued from the USPO*, (Gov. Printing Office Washington, D.C., 1921), pp. 127-133. http://babel.hathitrust.org/cgi/pt?id=mdp.39015030261567;view=1up;seq=134

3 See for example, E. Viall "Making the DeVilbiss Pliers – 1," *Machinery*, Vol. 9, May 1910, p. 717-727.

4 "Lee De Forest, 87, Radio Pioneer, Dies," *New York Times*, p.1, Jul, 2, 1961.

5 Cited in Grammarphobia Blog of Patricia T. O'Conner and Stewart Kellerman dated July 16, 2010.

6 Specifically ignored were entries for Lee's surname when used as an adjective as in "DeForest method," in advertisements, as the first word in a sentence, and in announcements such as patent notices.

7 Bias is indicated by using one form of spelling exclusively, by using the de-Forest form when spelling his eponymous companies, and/or by finding changes in spelling in case studies of any individual with a De or de particle followed by a space, whose correct spelling can be independently verified to have no space.

8 Examples of bias: the de Forest form was used exclusively for Lee; photographer C. W. DeForest was spelled C. W. De Forest; and the "de Forest" form was used for his eponymous companies.

9 *The Autobiography of Cecil B. DeMille*, (Prentice Hall, Inc. NJ, 1959) pp. 6-7.

10 http://s166290537.onlinehome.us/2007/05/20/maurice-zouary-plans-new-book-about-lee-de-forest-phd/

BY BRUCE ROLOSON, W2BDR, CURATOR, ANTIQUE WIRELESS ASSOCIATION MUSEUM

The Passing of a Pioneer: Remembering Lauren Peckham

Lauren Peckham, third President of the Antique Wireless Association and my friend for almost half a century, passed away unexpectedly at his home in Breesport, NY on December 19, 2014.

My friendship with Lauren began at the Westinghouse plant in Horseheads, New York. I was working on a test set for 1.2 megawatt power transmitter tubes. Lauren was working on a test set for the Lunar Landing Camera (first camera on the moon). He occasionally visited my test area to get a supply of the liquid nitrogen that was stored just outside my lab. During these errands we would often chat, and eventually discovered a mutual interest in antique radios. We soon became good friends and he invited me to visit his home in Breesport, NY.

My first visit was quite an adventure. Joyce (Lauren's wife) and Lauren showed me their collection of pianos, phonographs, music boxes and, yes, their theater organ. Then we went for a tour of the radio museum. I had never seen so many makes and models. There were also vacuum tubes of all kinds, including very early historical ones.

Lauren told me that there was going to be a meeting of radio buffs, members of the Antique Wireless Association, at his house the following month and invited me to attend. When I got home that evening my head was spinning from all I had seen and learned. My wife encouraged me to attend this "Spring Meet," as it was called, to find out if I would be interested in joining the organization.

I did attend that Spring Meet in 1966 and later joined AWA. Lauren turned out to be a walking reference on vintage radio and vacuum tubes. AWA members from all over the globe would seek him out to ask him questions. At the Meet, I also met a couple of Lauren's other close friends: Richard Ransley (Dick) and Dexter Deeley (Dex).

Lauren Peckham in his home museum about 1985.

Later, Lauren, Joyce, Dick, Dex, Arlene (my wife) and I formed the group that guided AWA to what it is today. Lauren was the leader. Our goals were to expand membership from a fixed 500, computerize the membership data and accounting as well as expand the annual conference.

Lauren, Dick, Dex and I eventually became members of AWA's Board of Directors. However, Lauren and I could not become officers because we were not radio hams, a requirement at the time. We finally

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convinced the board to eliminate the restriction. At the next Board meeting Lauren was elected President, I became Vice President, Dick was Secretary and Dex was Treasurer.

We worked to make the AWA Conference and *Old Timer's Bulletin* (later, the *AWA Journal*) more oriented to the collector and historian. The membership grew from the 500 level to 4500 members. The conference attendance rose from about 200 to a peak of 850. That time was truly the golden age of AWA.

Now the Antique Wireless Association Museum and the preservation of the history of communications are the main focus of our organization. And the contributions of Lauren Peckham will always be part of our legacy. Lauren's sons David and Kent will remain special members of the AWA family. Before closing my recollections, I want to mention Julia, Lauren's second wife. Julia brought joy to Lauren during his last two years and kept him coming to AWA events.

Finally, when I first met Lauren, he had been mentoring a young man named Gaylord Ewing in our fascinating hobby for a few years. Gaylord has maintained his relationship with Lauren until the present time, and I want to include the following excerpt from his recollections.

I was deeply saddened on learning that Lauren had graduated to be with the Lord on December 19, 2014. I had just talked with him on the telephone the previous evening, and our relationship goes back more then 50 years.

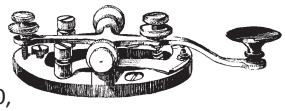
I first met Lauren and Joyce in June, 1963. I had found an Atwater Kent radio down in the basement of my childhood home in Breesport, N.Y. We had been visiting a cousin of mine and I asked him if he knew anyone who repaired antique radios. He told me about a man by the name of Lauren A. Peckham who lived in Breesport. I made an appointment with his wife Joyce and came over with the radio. Lauren quickly found a bad tube and a bad volume control; he had the radio working in about 15 minutes.

Then Lauren asked me if I wanted to hear his theater pipe organ. I asked him how far away I would need to go to hear the organ. He said "Down in my living room." Well after I heard it, I told Mr. Peckham that no home should be without one.

I spent a lot of Friday evenings at the Peckham home. Lauren taught me everything I know about radio receivers. He was quite the master craftsman. Both Lauren and Joyce encouraged me to join the Antique Wireless Association. They also invited me to go with them to my first antique radio meet in the summer of 1966.

On a typical Friday evening visit, I would find Lauren working on recently acquired antique radio, player piano or pipe organ mechanism. He and I quickly became kindred spirits. I remember that once Lauren asked me if I would ever "experiment" with drugs. He was very pleased when I told him "no." Another time Lauren told me that I had the "radio bug" really bad and there was no cure. Lauren and Joyce were like an older brother and sister to me.

The Peckhams made many contributions to AWA; their impact will be felt for many years.



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casalejj@yahoo.com *PLEASE INCLUDE SASE FOR MAIL REPLY.* © 2014, J. CASALE

The Centennial of the Vibroplex Co., Inc.

And their first home at 253 Broadway, New York

This year marks the true centennial of the Vibroplex Company. The firm was formed and incorporated in the state of New York on March 12, 1915. Several writers over the years have documented the company's beginnings at other times, with the most common being in the year 1890. Others documented the startup on the date of the introduction of the Vibroplex key itself or the date that Vibroplex inventor Horace G. Martin, received his first patent.

As a compliment to the article, "The Centennial of the Martin Vibroplex," written for the Spring 2005 issue of *The AWA Journal*, I thought it would be appropriate to dig deeper into the actual beginning of this iconic company and show the reasons for the confusion about the start dates.

The primary reason for the confusion comes from the dates stated in ads placed by James E. Albright, the first owner and general manager of Vibroplex. Albright's main business throughout his career was as a typewriter dealer operating as J. E. Albright & Co. Vibroplex was a separate enterprise and was mainly a mail order business.

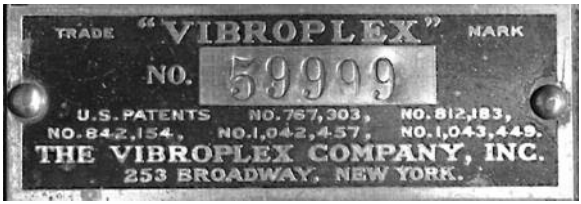
The Postal Telegraph Building at 253 Broadway, New York City (at center of picture). This was the first home of the Vibroplex Company. Library of Congress.

It is important to note that during the entire Albright era of ownership of the Vibroplex Company, 1915 to 1964, J.E. Albright & Co. and the Vibroplex Co., Inc. operated separately but from the same address. The early start dates identified for both of his businesses were dates when Albright claimed to have entered the typewriter business. Over the years, Albright stated various start dates, including 1890, 1896 and 1901. He did this primarily in reaction to claims made by other companies in the competitive New York City area typewriter market.

James Albright and his younger brother William, natives of North Carolina, were both accomplished telegraphers. The Albright brothers, like most telegraphers of this time, aspired to work in larger and busier offices and moved around frequently. New York City was considered to be the largest telegraph hub at that time and was a magnet

for young telegraphers like the Albrights. The city was also the headquarters of both the Western Union and Postal Telegraph Companies.

The brothers appear to have first arrived in New York City in 1899 and were employed by the Postal Telegraph Company. In addition to their normal daytime duties, both worked occasionally at night on Postal's high-speed, high-volume, press wires coming from *The New York Herald*. William was also a Wire Chief at Postal for several years.



The first style of the Vibroplex Company name plate, showing the Postal Telegraph Building address.

It is interesting to note that the first use of typewriters by the Postal Telegraph Company was around 1890. Telegraphers were required to purchase their own typewriters. In order to help their telegraphers pay for this equipment and encourage its use, Postal increased its telegrapher's pay by $5.00 a month. The $5.00 went directly to the cost of the typewriter until it was paid-off. Thereafter, the $5.00 went to the telegrapher.

This program continued until typewriters became commonly used. Thereafter, Postal discontinued the payment but still required operators to supply their own typewriters. The company did provide typewriter ribbons and storage lockers. The lockers were sometimes built right into the telegrapher's tables or operating positions.

Western Union began to encourage typewriter usage around 1893. No payment was made to telegraphers but they did provide ribbons and lockers. This arrangement lasted until around 1912, when Western Union started to supply the typewriters.

The increasing need of the large telegraph companies for telegraphers proficient in using typewriters and the increased pay they could receive created a growing market for the machines. Albright recognized this business opportunity and followed what some other enterprising telegraphers had begun to do—informally starting to supply telegraphers with typewriters as a side job. Albright conducted his typewriter business from the relatively new Postal Telegraph building at 253 Broadway in New York City where both brothers were working.

The 14-story Postal Telegraph Cable building was built during the years 1892-1894. The subbasement housed the boiler rooms, engine, pump rooms and the dynamos that supplied power for Postal's telegraph circuits. Above the sub-basement was a twelve-foot-high basement for Postal's storage, supplies and the linemen's and messenger's rooms. The first floor, at the street level, was designed to receive the company's local traffic. Customers walking through the entrance faced a large Commercial Cable globe that was in front of a cluster of incandescent lamps.

The second through tenth floors were leased to local businesses. The eleventh floor housed the executive offices including

A Postal Telegraph "Octet" operator's table containing eight closets for storing a telegrapher's typewriter (four on each side).

the office of John W. Mackay. The entire telegraph operating department was on the twelfth floor. This floor had large windows and an 18-foot pitched ceiling. The thirteenth floor had miscellaneous Postal offices and coat rooms. And the fourteenth floor was home to the "parlors" of the Hardware Club of New York.

It was not until 1910 that Albright formally set up his business. It was housed on the fifth floor of the Postal Telegraph building in room 528. From this location, he sold, rented and exchanged typewriters. The location was convenient not only for other Postal telegraphers but for any telegrapher working in New York City. The 253 Broadway address became associated with Albright's typewriter, and later Vibroplex, businesses for several years.

Also during this period, companies offered higher pay to telegraphers who could not only produce clear copy but also handle large volumes of messages. Both Western Union and Postal Telegraph companies had contracts with select telegraphers who could send large numbers of messages in the shortest period of time. Achieving higher sending speeds, and at the same time protecting the health and longevity of a telegrapher's arm, led to the art of semi-automatic telegraphy developed by Horace G Martin and new key designs by several inventors.

Albright recognized this business opportunity and seemed to have modeled his operation on that of former Postal telegrapher, O.T. Anderson, who was based in Chicago. Anderson also operated a typewriter exchange business and he was also was an early agent for the most popular transmitters at that time, the Mecograph and Martin's Autoplex and Vibroplex. These transmitters, like typewriters, were being commonly supplied by telegraphers.

The Albright brothers operated their business while working as telegraphers for Postal. Fellow Postal telegraphers could come downstairs to make purchases and the Albrights were also allowed to serve telegraphers up on the twelfth floor and try out new instruments on Postal's wires.

In September of 1910, Albright began advertising to a larger telegrapher market by placing ads in national magazines. In his first ad he claimed the "lowest prices in typewriters in the United States" and having "all makes of sending machines." The first key he advertised was not a Vibroplex but a Dunnuplex invented by Thomas J. Dunn.

Dunn was an early partner of Horace Martin. Meanwhile, during this period, Horace Martin had returned to New York in December of 1909 after his United Electrical Manufacturing Co. (UEM) folded in Georgia. His two patent suits with the Mecograph Company were finally settled by the U.S. Court of Appeals with each party winning their respective suit resulting in a out-of-court settlement.

Albright first started to highlight the Martin Vibroplex in his March 1911 ads and by October was listed as being Martin's sole selling agent. It was around this same time, when Albright became the "sole agent," that Albright purchased the patents

One of the first Vibroplex ads targeting wireless applications. From Modern Electrics & Mechanics*, June 1914.*

owned to date from Horace Martin and set up a business arrangement with him. Up until this time Martin sold and manufactured his own keys. From this point forward, Martin was the manufacturer and Albright was the sole selling agent and took on the role of defending the patents. Martin set up shop as a separate entity manufacturing his Vibroplex models a few blocks away at 51 Cliff St.

In November of 1913, Albright was able to acquire Mecograph's William Coffe patent from the Benjamin F. Bellows family of Ohio. The Coffe patent was the first mechanical transmitter patent. Along with Martin's patent, it was critical for the defense of any future patent litigation. All new Mecograph production was to be done by Martin. After this acquisition, Albright began to state that he was the sole agent for both the Vibroplex and the Mecograph. Albright's consolidation of all the major patents and interests in the semi-automatic transmitter field was the basis for the forming of the Vibroplex Company.

On March 11, 1915 a certificate of incorporation was filed to create The Vibroplex Company. The company was owned by three members of the Albright family. James owned 80% and his younger brother William and older sister Estelle each owned 10%. They operated out of the Albright's fifth floor room in the Postal Telegraph building. Albright continued to operate and expand his typewriter business separately, from the same address, as J. E. Albright & Co. A year later he started to advertise beyond telegraphers to the general New York City area typewriter market. By the way, in 1915, both Vibroplex and J. E. Albright & Co. had the same phone number, Barclay 6624.

In 1915, Vibroplex still had decades of telegrapher business ahead of it. Yet to develop was decades of business from thousands of professional, military and amateur wireless operators. Albright recognized this potential market and began advertising to wireless operators as early as 1914. The Vibroplex Company's success can be attributed to Albright's business skills and instincts. Also, the company was essentially operated by two professional telegraphers selling great keys that were manufactured by another professional telegrapher who invented the Vibroplex and the art itself.

SOURCES

The Electrical Engineer, April 1894

University of Minnesota Libraries, Telegraph Age*,* May 16, 1899, August 16, 1901, June 1, 1902

Telegraph and Telephone Age, November 16, 1913

Journal of the Telegraph, March 20, 1911, February 20, 1914

Commercial Telegraphers Journal, January 1915

The Railroad Telegrapher, February 1907, September 1910, May 1914

Testimony, Horace G. Martin, *Vibroplex vs. William Zeidler Company,* January 1922.

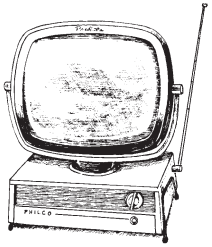
Testimony, James and William Albright, *Vibroplex vs. J.H.Bunnell & Co.,* March 1926.

The Tax Magazine, November 1934 Vibroplex Co. Inc., Certificate of Incorporation, March 12, 1915, Office of Sec. of State, New York.

New York City and Brooklyn Directories, 1890-1920 U.S Census.

Television

EDITED BY **RICHARD BREWSTER**, 145 LITTLE PECONIC BAY ROAD, CUTCHOGUE, NY 11935 *PLEASE INCLUDE SASE FOR REPLY.*



RCA's Portable TV Pickup System

It is July, 1931 and Zworykin has not yet developed his Iconoscope tube. But, typically, he is planning ahead. He has stated that "…outdoor pickup is entirely possible" and that "…it is good sense therefore to start the design of portable equipment around this tube."

Referring to his drawing (Figure 1) depicted on page 13 of RCA Notebook #680, it is obvious that Zworykin is planning to use a pickup tube with a single-sided mosaic. Right from the beginning of his work at Westinghouse in the early 1920s, he had planned a double-sided tube. In this tube,

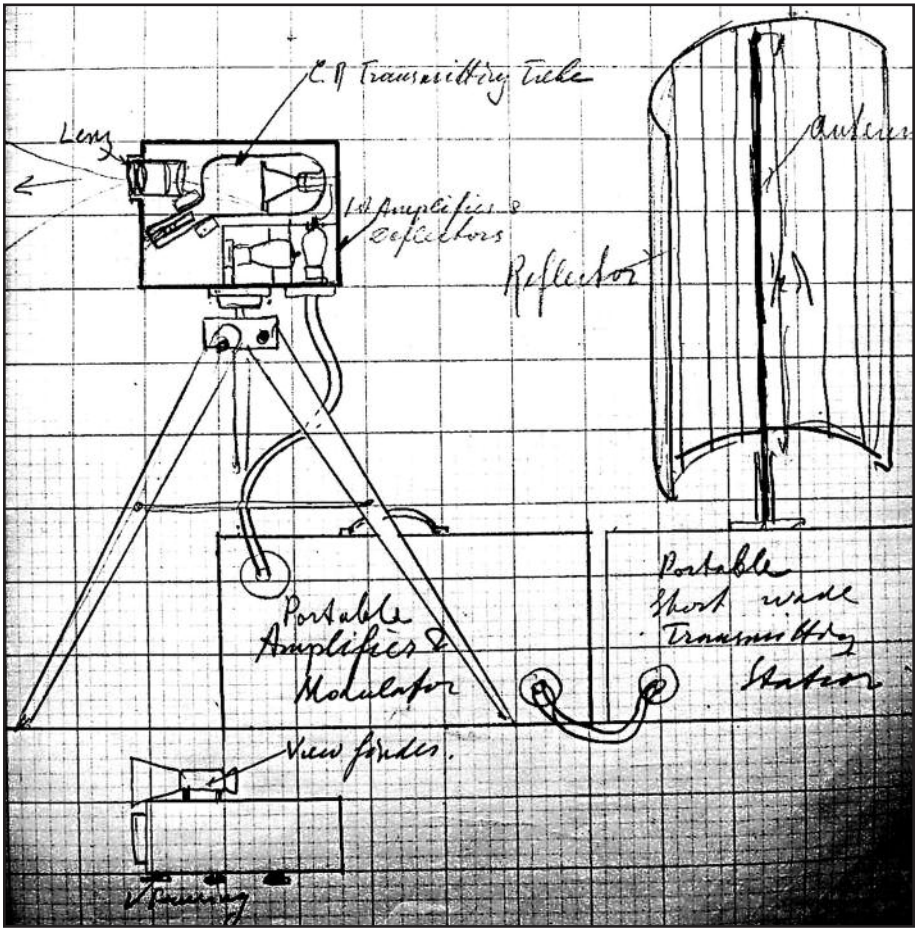


Figure 1.

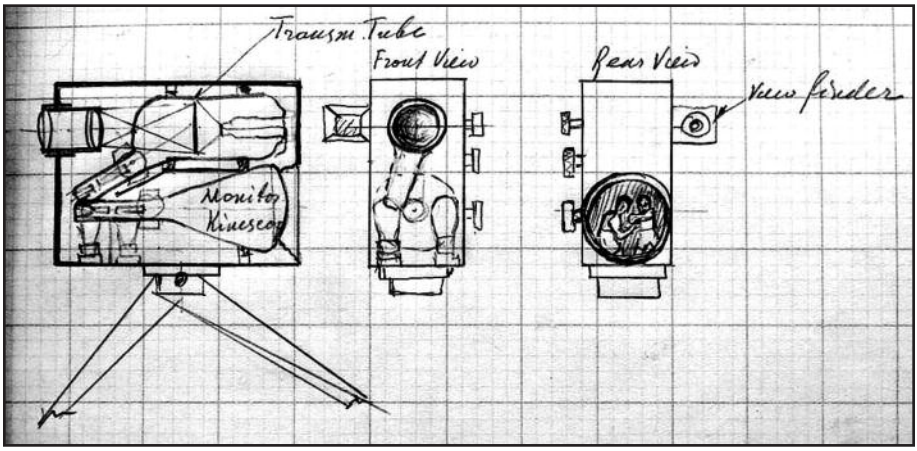


Figure 2.

the image would be focused on one side of the mosaic and scanned by an electron beam from the reverse side.

He will continue to work toward that end for much of the next decade.

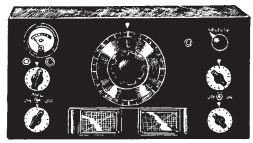
Zworykin further explains that the camera unit will contain tubes for pre-amplification as well as deflection. Also shown is an optical viewfinder attached to the camera. The sync signals would be created by the iconoscope deflecting circuit during the interval of the return of the scanning line and would bias off the picture amplifier to avoid overloading it.

From the appearance of the transmitting antenna, he is planning to employ rather high frequencies for that time so as to be quite directional. He plans to use dry batteries, believing that his equipment will require limited power. He even notes that the iconoscope will need only 500 volts.

In Figure 2, a camera is depicted complete with monitor kinescope. Zworykin explains that, "…additional equipment required to operate the monitor is negligible". Actually, the kinescope second anode would require considerably more than the 500 volts needed for the iconoscope. So the battery requirement could become excessive.

The author wishes to thank the Hagley Museum and Library for much of the material in this article.

The Communications Receiver



BY **BARRY WILLIAMS, KD5VC**, 2002 MUSTANG LANE, ROSHARON, TX 77583
E-MAIL: hroengineer@gmail.com

The Teleradio Receiver

Though the Teleradio is rarely seen in the United States, it is mentioned in most books about the Coast Watchers in the Solomon Islands and the Spotters in the New Guinea area during WWII. The Teleradio was designed to be a rugged communications system that could be transported (by a dozen or so local porters), would be easy to set up, operate on voice or CW, and survive the variations in heat and humidity of the jungle and mountains of those islands as well as the very rough handling by the porters

The system was designed and built by AWA (Amalgamated Wireless of Australasia), and consisted of the C6770 receiver, the J6800 transmitter (early version with external antenna tuner) or the J50062 transmitter (modified later design with built in antenna tuner), the Speaker and spares box, two 6-volt wet cell batteries (accumulators in Australian terminology), the charger motor-generator set, oil, fuel and accessories such as a microphone, antenna wire and insulators, headphones, key and crystals.

During a typical trek there were about a dozen porters for the communications set as well as others for the food and water required by the Coast Watcher and porters.

The two components of primary interest here are the receiver and the charger. The charger is interesting in that it consisted of a generator connected to a Briggs and Stratton engine. This was the same engine design that was used in the United States to power washing machines in the 1930s.

The engine was a single cylinder flat head (side valve) design which used a foot crank for starting. The quality of the oil and fuel was variable, so a major problem was carbon build-up and burned valves. Unfortunately a socket for the head bolts was not included in the spares during the early part of the war, so there are stories of having to break the cooling fins from around the head bolts to be able to use a "spanner", or standard wrench, to remove the heads.

Otherwise these units seemed to have a long and reliable life. It appears that they were mounted so that two porters could carry the charger system. Most of the operation was behind Japanese lines, and as the Coast Watchers were often being hunted, the operators expended considerable effort to keep the engine running as quietly as possible. Often the engine was located in a pit, with the exhaust plume being distributed by the jungle growth.

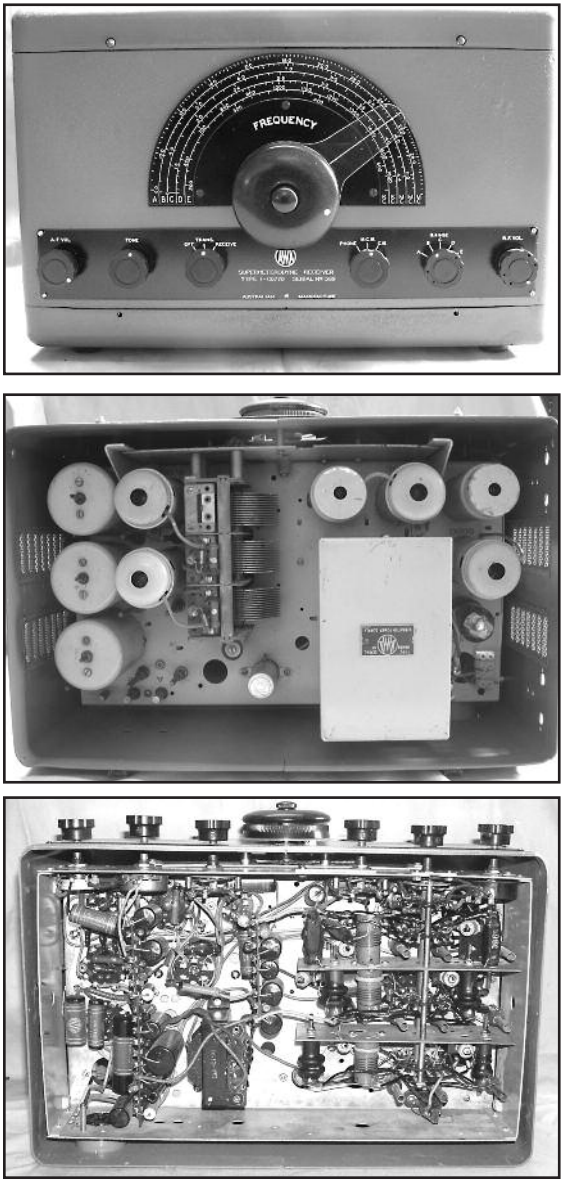
The receiver issued to the Coast Watcher was normally the 1C6770 or the 3C6770. There is some disagreement in information sources, some stating that the 2C6770 was mains powered, others that the 1C6770 was mains powered and the C6770 was the unit issued to Coast Watchers. The Coast Watcher sets (whether 1C6770 and 3C6770, or C6770 and 3C6770) were powered by 6 or 12 volts.

The 1C6770 had five variable frequency ranges covering 200 KHz to 30 MHz. These included 200 kHz to 515 kHz, 545 kHz to 1650 kHz, 1.6 MHz to 4.6 MHz, 3.5 MHz to 11.1 MHz and 9 MHz to 30 MHz. The 3C6770 had the same first four variable frequency ranges covering 200 kHz to 11.1 MHz; the fifth band position was crystal controlled.

The books typically do not mention operating frequencies, other than mentioning day and night frequencies. The book about the Spotters in Papua/New Guinea does have a network chart showing operating

frequencies, these include (in kHz), 3500/7500, 4100/5790, 3250/6500, 3655/6625, 3600/7200, 3750/5500, 3515/7030, 4250/6990 as well as the "X" frequency were used.

The "X" frequency was unknown to the operators and simply marked as "X" on the crystals. A 24-hour watch was kept by on this frequency by the headquarters stations. The Headquarters station was located at Port Moresby, southern New Guinea. Later a control station was set up on Guadalcanal. This was located in a dugout near the end of Henderson Field.



Three views of the Teleradio Receiver.

Pictures of the station show a RAS setup (Navy version of the HRO) next to the Teleradio system. In order to protect the identity of the "X" frequency, the Coast Watchers were told to remove the crystals in case of an attack and hide or destroy them. Of course, all the standard warnings to destroy the complete Teleradio set were issued, and carried out where time permitted.

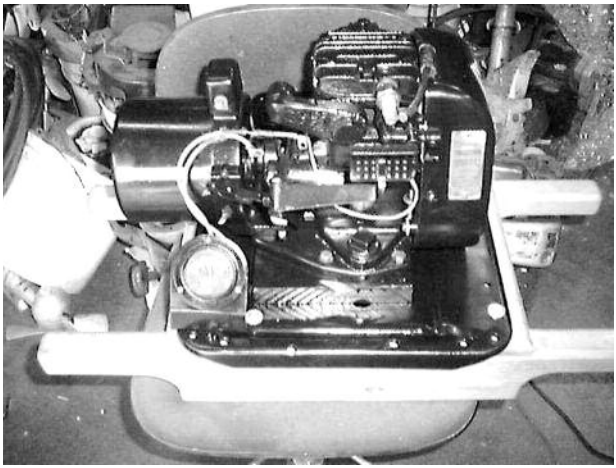
The units for the Teleradio were fitted in cases with rounded corners, the receiver and transmitter included fitted front covers to protect the controls. The top, bottom and front covers were attached by the use of spring clips to allow removal for operation or repair.

The C6770 used five octal vacuum tubes, a 6U7G pentode RF Amplifier, a 6J8G heptode-triode converter tube, another 6J8G heptode-triode IF Amplifier and BFO, a 6G8G dual diode-pentode Detector, AVC and first Audio, and a 6V6G Beam Power Tube as the final audio amplifier. Front panel controls included Volume, Tone, Off/Transmit/Receive Switch, Phone/MCW/CW Switch, Bandswitch, RF and Volume. Above these controls was a 180 degree reduction dial system with moving pointer for Frequency Control.

The power supply for the receiver used a self-rectifying synchronous vibrator. One set of contacts provided the pulsating power to the transformer; the

second set of contacts rectified the output from the transformer. Timing of these contacts was done at the factory, but after abuse in the field, the operator might find that he had to open the vibrator and attempt to retime it by bending the reeds.

Apparently only a couple of the operators, who had been amateurs prior to the war, were capable of advanced troubleshooting. There are stories of a 200-mile trip by canoe to get a recalcitrant receiver or transmitter to one of these technicians. The rest of the power system is a standard capacitor input filter. The complete power system is located in an enclosure and bypassed to reduce electrical noise in the receiver.



The charger system was mounted so that it could be carried by two porters.

The band switch has eight wafers, both the "hot" and "cold" end of the tuned circuits are switched, it appears that the last sections of the switch vary the screen voltage to equalize gain across the bands. The schematic diagram shows an RF tuned circuit, the RF amplifier, a second set of RF tuned circuits, the converter tube with local oscillator circuit to convert to the IF frequency, an IF transformer, IF amplifier and BFO oscillator tube, second IF transformer, audio detector, AVC detector and 1st audio amplifier, final audio amplifier and output transformer. The BFO output from the triode section of the 6J8G is fed to one of the detector plates.

It appears that the IF frequency was 535 kHz, the BFO oscillator was at 178.3 kHz, and tripled for the 535 kHz injection frequency. There are only two IF transformers, so selectivity would be wide. I would think that with the location of most of these receivers, selectivity would not be a problem. Audio output was just under 1 watt, with output impedances of 1.5 ohm or 8 ohms for the speaker, and 600 ohms for the headphones.

From the information in the Coast Watcher books, it appears that the C6770 was well suited to the task, and quite reliable other than the occasional broken or failed vacuum tube and the timing of the vibrator. Where these battery powered receivers had access to mains power, AWA built a converter using a large stack of selenium rectifiers to provide 12 volts DC to the receiver.

I actually purchased a couple of C6770 type receivers and 3BZ transmitters along with the Speaker/Spares Box, and a rare main power to 12-volt converter. These were located in Australia, and by the time I had found the costs to pack, and ship what had grown to about 600 pounds of gear, I elected to let it remain in Australia and donated it to a couple of fellows who were interested (and local).

Some of this gear came from Colin MacKinnon VK2DYM (SK). He and I had become good friends after getting together to exchange information on the National HRO and AMR-100/101 receivers. We exchanged daily emails about a wide range of subjects. A few years after we met, Colin found that he had an inoperable brain tumor and told me to take anything I wanted from his large collection.

I would recommend that you read

(continued on page 72)

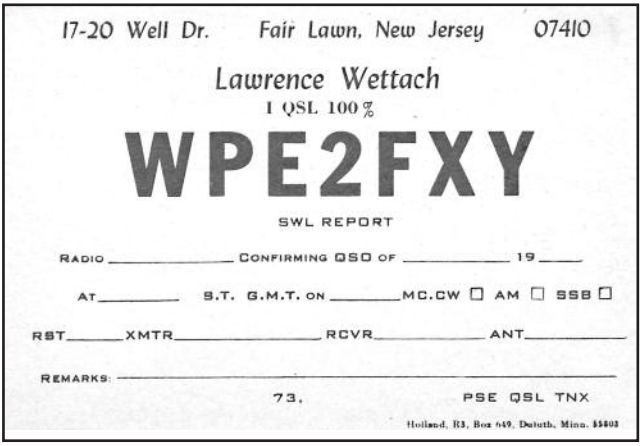
Radio Ramblings

BY **JIM COOK, W0OXX**, 21903 W. 57TH TERRACE, SHAWNEE, KS, 66226—*PLEASE INCLUDE SASE FOR REPLY.*
E-MAIL: radiomanjim46@yahoo.com

The Unexpected Benefits of Short Wave Listening

One of the topics chosen for the theme of the 2015 AWA Convention was Short Wave Listening. This reminded me of pleasant times in the 1950s and 1960s, including how the activity helped me understand radio and the profound effect it had on the life of one of my friends.

I was very young when I first listened to short wave stations with my father on his 1942 Zenith console. He would often slowly tune across the band and explain to me which stations he was receiving. The first station I learned about was WWV, which I referred to as the "clock station." I learned that this station was operated by the National Bureau of Standards. It not only provided accurate time reports, but also served as a frequency standard for both radio and audio frequencies.


17-20 Well Dr. Fair Lawn, New Jersey 07410

Lawrence Wettach

I QSL 100%

WPE2FXY

SWL REPORT

RADIO _____ CONFIRMING QSO OF _____ 19____

AT_____ G.M.T. ON _____MC. CW ☐ AM ☐ SSB ☐

RST_____XMTR_____ RCVR_____ ANT_____

REMARKS: _____

73, PSE QSL TNX

Holland, R3, Box 649, Duluth, Minn. 55803

A typical SWL card. The official looking WPE "call letters" were issued by Popular Electronics Magazine.

I also remember my father tuning into interesting foreign broadcasting stations, many using languages I had never heard before. Once my father tuned into a church service being broadcast from Australia. I asked him why a church service was being broadcast on a day other than Sunday. My father explained that it was Sunday in Australia but not in the United States. He told me about time zones and the international date line, all of which was fascinating new information to me.

By the time I was ten years old, my father suggested that I use part of my savings to purchase a used communications receiver. We found a Hallicrafters S-38C that belonged to an amateur radio operator. I purchased it for $40.00 and the deal included a nice pair of headphones.

I spent many hours listening on my S-38C. While I used it primarily for short wave listening, I also discovered that it allowed me to hear domestic broadcast stations that most radios could not receive. I also became aware of amateur radio and decided to work toward getting an amateur radio license.

Short wave listening also taught me the principles of superheterodyne radio operation. When I was comparing the sensitivity of my S-38C with that of my father's Zenith, I noticed that sometimes I would hear a whistle in one radio while I was tuning the other. My father explained that one radio was picking up the local oscillator of the other.

I remember listening to musical performances on European stations, noticing how

selective fading sometimes gave the music a spooky sound. These experiences taught me about radio wave propagation and how it varied by wavelength and by time of day.

Some of my friends who were interested in short wave radio purchased "SWL cards" similar to the one illustrated with this article. The short wave listener would send his card, with a reception report, to a short wave broadcast station he had monitored and the station would send back information about its equipment and the country where it was located. *Popular Electronics* magazine provided useful information on short wave listening opportunities.

Although my SWL interests helped me become familiar with radio and obtain an amateur radio license, one of my friends, Steve Carpenter, pursued short wave listening because he was interested in international events and the people who lived in foreign countries, particularly in Western Europe. The benefits he received from short wave listening were ultimately far greater than mine!

I met Steve in 1960 when he was 15 and

The Hallicrafters S-38C and the National SW-54 introduced many youngsters to the excitement of short wave listening.

Steve and Frances Carpenter, now married almost fifty years, met through a pen pal program that Steve learned about through SWL activities. See text.

I was 14. We both had newspaper routes, and our newspapers were dropped off at the same location. We would often visit before the newspapers arrived. Steve told me about how he used his Hallicrafters S-85 to listen to stations all over the world, and he invited me to visit his home to look at some of the information he had received from foreign stations. One of the European stations offered a "pen pal" program to encourage international understanding through personal correspondence.

The pen pal program put Steve in contact with Frances Van Delden, a teenage girl who lived in The Netherlands. The correspondence between Steve and Frances went well and Steve began to think that he would really like to meet this interesting Dutch girl after he graduated from high school in 1963. Steve saved his money and planned a two-week trip to tour Europe.

When Steve arrived in Europe, one of his first stops was in Holland to meet Frances. They liked each other immediately. He

quickly toured the rest of Europe and then returned to see Frances again before his return flight to the United States.

Steve learned that Frances' family was also impressed with him. They talked about seeing each other the following summer, and Frances' father told Steve that he would pay all of his expenses in Europe if Steve would pay for his flight from the United States. They agreed to this arrangement and Steve made annual trips to Europe while he was in college.

By the summer of 1966, Steve and Frances were engaged. When Steve graduated from Washburn University with a business degree in May of 1967, he immediately flew to Europe to marry Frances. After a short honeymoon, Steve returned to the United States to attend Air Force OTS training in San Antonio, TX. He was later assigned to Keesler Air Force Base in Biloxi, MS, for additional training. During this time, Frances joined him in the United States. I was able to spend a few days visiting them in July of that year. I took the photograph of the happy couple shown with this article, during that visit.

When Steve left the Air Force, he and Frances moved to The Netherlands where they still live today. Steve established a successful business working as a representative of U.S. companies doing business in Europe. They had one daughter and one son and now have two grandchildren.

Steve and Frances retired several years ago and moved from a city to a small village in Holland. By the time you read this they will have been married for 48 years.

COMMUNICATIONS RECEIVER, *continued from page 69*

Colin's story about moving his three shipping containers of surplus equipment. It is an enjoyable story, involving the disabling of one tilt back truck and the hiring of a large crane. The story is located at www.qsl.net/vk2dym.

Once there, click on the picture of the three shipping containers. Colin did not get to see the equipment that he had moved. He was in the process of building a shed to hold the equipment when his illness ended his life. Perhaps it is best that he did not see the equipment, as there were rust holes in the roof of the containers and much of the equipment was destroyed.

There was a very rare 3B transmitter, but we decided it would be best kept in Australia. I made a contribution to his estate and had another friend, Ian O'Toole (see Kurrajong Radio Museum) hold the equipment until I decided on its disposal. Equipment of this age, and in good condition, is very difficult to find.

Through Colin and Ian, I acquired a very high interest in the Coast Watcher system and the fellows who underwent great hardship, usually alone, in order to supply invaluable information to the US and its allies. "The Coast Watchers saved Guadalcanal, and Guadalcanal saved the Pacific."

Books concerning the Coast Watchers and Spotters that I recommend include the following:

Lonely Vigil, Walter Lord
If I Die, Wright
Alone on Guadalcanal, Martin Clemens
Fire Over the Islands, Horton
The Coast Watchers, Feldt (Note there are two versions, and abridged version published in the United States, and the original version published in Australia, I ordered mine from a bookshop in Australia)
The Private War of the Spotters, Alex Perrin
Allied Intelligence Bureau, Allison Ind.

Thanks again for your time, and 73,
Barry, KD5VC

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Images Selected From the AWA Museum Archives

BY **JAMES KREUZER**, N2GHD, MEDIA LIBRARIAN

MEET RADIO ROSE!

I wonder how many radio collectors have ever seen, or heard of, a three-tube regenerative battery receiver installed in a doll? According to the January, 1925 press release attached to this image, Rose was created by an individual known as "The Lady Edison." What kind of horn speaker do you suppose was mounted in the doll's head and chest? Where did the batteries go? Can you imagine if one of these showed up for sale on eBay…talk about a cross-collectible!!! I would bet that both doll collectors and radio collectors would go bananas over "Radio Rose"!

More on Radio Rose, as well as the answer key to the DeForest crossword puzzle published in the Winter Issue will be found in the "Membership News" column.